

Chatham County

Farmland Protection Plan

Ted Feitshans, J.D.

Ed Emory, M. Ed

W. Stan Dixon, Ed. D.

January 2024

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Acknowledgements

Chatham County contracted with the Lois G. Britt Agribusiness Center of the University of Mount Olive. This plan was written by Ted Feitshans with assistance from Ed Emory and W. Stan Dixon. Ted Feitshans has a Juris Doctor degree from Georgetown University and served as an Extension Professor at N.C. State University until his retirement in 2016. Mr. Emory holds a B.S. and M.Ed. from NC State University and served with the N.C. Cooperative Extension Service in Pamlico and Duplin Counties for more than 28 years. He retired in 2009 after serving 19 years as county extension director in Duplin County. Dr. Dixon has an Ed.D. from N.C. State University and served with N.C. Cooperative Extension in Martin, Wake and Greene counties. He retired in 2009 from N.C. Cooperative Extension as County Extension Director.

The following agencies and individuals assisted with the development of this plan:

- North Carolina Cooperative Extension, Chatham County Center
- Chatham Soil & Water Conservation District
- Chatham County Natural Resources Conservation Service
- Chatham County Board of Commissioners
- Chatham County Manager's Office
- Chatham Agricultural Advisory Board
- Chatham Farmland Preservation Plan Update Subcommittee
- North Carolina Forest Service
- Lois G. Britt Agribusiness Center, University of Mount Olive
- The citizens, farmers and agribusinesses of Chatham County



Executive Summary

Chatham County has a vibrant agricultural forestry sector that is an important component of the County's fabric of life. Currently about 60% of Chatham County is under forest cover. The benefits of forest cover are well known and include moderating excessive rain events by slowing runoff into streams and rivers, and increasing infiltration of water into the soil, helping to recharge aquifers. The goal of this Farmland Protection Plan is to reflect the importance of agriculture and forestry and assess the opportunities, challenges and issues that are currently facing the industry. This plan provides recommendations, based on citizen input, on ways to enhance agriculture, forestry, agribusiness, and agritourism in the County.

Farmland is an irreplaceable natural resource. The farmers who are stewards of the land impact the economy and quality of life for all county residents. By the various measures discussed in this plan, agriculture and forestry are important to the wellbeing of all Chatham County residents.

The impact of agriculture in Chatham County is significant and the following statistics from the 2017 Census of Agriculture show the notable State rank¹ of Chatham County's agricultural production (measured in market value of products sold) of various commodities in 2021:

- Total market value of products sold: \$171,150,000.
- Chatham County ranked 2nd in sheep, goats, wool, mohair, and milk.
- Chatham County ranked 3rd in horses, ponies, mules, burros, and donkeys.
- Chatham County ranked 5th in cattle and calves.
- Chatham County ranked 12th in poultry and eggs.
- Chatham County ranked 18th in cultivated Christmas trees, and short rotation woody crops.
- Chatham County ranked 19th in milk from cows.
- Chatham County ranked 39th in tobacco.
- Chatham County was 39th in nursery, greenhouse, floriculture, and sod.

¹ These rankings are based on 2017 market value of products sold whereas the rankings in the 2022 NC Agricultural Statistics Book from the North Carolina Department of Agriculture and Consumer Services' Division of Agricultural Statistics are based upon 2021 cash receipts.

- Chatham County is home to several native plant nurseries and serves as a leader in this field.

According to NC State Extension¹, private landowners were paid \$7.4 million for timber harvested in 2020. The forest sector in Chatham County supported 1,247 total jobs with a payroll of about \$63 million. The forestry sector in Chatham County had a total economic contribution of approximately \$297 million in industry output to Chatham County's economy.

Rapid population growth is driving the interest in farm and forest land preservation. According to the US Census July 1, 2022, estimates, Chatham County has a population of 79,864. This figure represents a 4.7 percent increase from July 1, 2020. From the 2010 Census to the 2020 Census, the population of Chatham County increased by over 20%. Chatham Park is an example of the residential development that is displacing farming and forestry. Disney recently announced that it will develop a new subdivision in Chatham County. This residential growth is being fueled by job growth both in neighboring counties and within Chatham County. Chatham County has been successful in acquiring new industries. VinFast and Wolfspeed are the two most recent examples. A negative side of growth for agriculture and forestry is that industrial, commercial, mixed-use and residential development reduces the total amount of land in agriculture and forestry. There are, however, positives that include a more affluent market for agricultural products, especially high-valued specialty crops and horticultural products.

Of the non-farm citizens surveyed, 99 percent believe that local government should take action to preserve farmland as a valuable resource. Ninety-eight percent of non-farm citizens support the use of government funds to support farm and forest development. All the non-farm respondents support farm and forest preservation efforts in the County.

This understanding of the value of the working farm and forest land has been consistent over time. The 2009 Plan was adopted by the Chatham County Board of Commissioners on March 1, 2010. It consists of two parts, the Agricultural Land Use Plan, and the Agricultural Economic Development Plan. The 2009 FPP was recognized and augmented by the 2017 Comprehensive Plan that also recommended that the 2009 FPP be updated. As set forth in this update to the 2009 Plan, much has been accomplished in the intervening period.

At the center of the Chatham County Farmland Protection Plan, based on information provided by farmers, agribusiness leaders, and non-farm residents through personal interviews and surveys, are eighteen recommendations. Recommendations and action steps were developed to provide a guide for protecting and enhancing agriculture, horticulture, and forestry in Chatham County. The success of this plan depends on the collaboration between local government, agricultural organizations, farmers, agribusinesses, and citizens of Chatham County. The plan needs to be evaluated regularly to celebrate accomplishments and add new recommendations as needed. The recommendations are to:

- 1. Develop sustained and committed funding for farm and forest land preservation.**
- 2. Coordinate Farmland Protection Outreach, Education, and Policy Development.**
- 3. Strengthen the Chatham County Voluntary Agricultural District Program; update farmland preservation ordinances; adopt an Enhanced VAD Program; and encourage the use of permanent conservation easements.**
- 4. Develop a Strategic Farmland Map**
- 5. Build Support for a Farmland Protection Program and Agribusiness Development**
- 6. Review Subdivision Regulations and Zoning to Ensure, Where Possible that the Needs of Agriculture and Forestry Are Met**
- 7. Explore Means to Ensure that Agriculture Has Long-Term Access to Water Supplies**
- 8. Advocate for Farm- and Forestry-Friendly State Agricultural Policies**
- 9. Seek Innovative Means to Integrate Farm and Forest Land Protection into the Jordan Lake Rulemaking Process**
- 10. Enhance Business Development Programs and More Fully Incorporate the Interests of the Agricultural and Forestry Industries**
- 11. Develop an Integrated Marketing System that Expands Opportunity to Direct Market and Wholesale Level Trade**
- 12. Create an Alternative Energy Development Program**
- 13. Create an Outreach and Public Relations Program**
- 14. Expand Education and Training Programs**
- 15. Develop a Farmer Recruitment Program**

- 16. Support Regional Agricultural Leadership Development**
- 17. Support the Resiliency Initiative of the 2017 Chatham County Comprehensive Plan (as amended in 2020)**
- 18. Equity and Inclusion**

The intent of this plan is neither to limit nor restrict landowners' rights and uses. The plan is intended to serve as a guide for actions to provide farmers, landowners and citizens an increased awareness of farmland preservation opportunities. Agriculture, horticulture, and forestry are important to Chatham County and its economy and to the well-being of family farms. However, the final decision on farmland preservation rests in the hands of the owners of farms and forests.

A Need for Action

Agriculture, consisting of food, natural fiber and forestry, is North Carolina's leading industry. In a 2023 report², covering 2021, prepared by Mike Walden, emeritus professor and extension economist at North Carolina State University, set out the statistics. Employment in agriculture and agribusiness was 736,679 persons, or 16% of the state's workforce. Agriculture and agribusiness (including food, fiber, and forest industries) contribute \$103.2 billion, or 15.6%, of the gross state product in North Carolina. Current estimates for Chatham County are not available.

Chatham County's leadership is cognizant of the importance of agriculture to the local economy and is supportive of the Farmland Protection Plan (FPP) that addresses issues related to farm and agribusiness viability for the future. The FPP is guided by the 2017 Comprehensive Plan, adopted November 20th, 2017, by the Chatham County Board of Commissioners and amended on March 16th 2020.² The goal of the Chatham County FPP is to provide recommendations for strategic actions that will guide local leaders in their efforts to preserve farms and forests, as well as educate the public and leaders about the many benefits of the agricultural industry. Chatham County is one of the fastest growing counties in North Carolina. According to the US Census, the population of Chatham County grew by more than 20% from the 2010 census to the 2020 census. Between April 1, 2020, and April 1, 2022, the Census estimates that the population of Chatham County grew by 4.7%.

Chatham Park is an example of the residential development that is displacing farming and forestry. Disney recently announced that it will develop a new subdivision in Chatham County. This residential growth is being fueled by job growth both in neighboring counties and within Chatham County. Chatham County has been successful in acquiring new industries. VinFast and Wolfspeed are the two most recent examples. A negative side of growth for agriculture and forestry is that industrial, commercial, mixed-use and residential development reduces the total amount of land in agriculture and forestry. There are, however, positives that include a more affluent market for

² <https://www.chathamcountync.gov/government/departments-programs-i-z/planning/adopted-plans/comprehensive-plan>

agricultural products, especially high-valued specialty crops and horticultural products.

According to the 2017 Census of Agriculture almost 40% of Chatham County farmers are age 65 or older. When farms are passed down to younger generations with little or no attachment to farming, farms are at risk of being removed from agricultural production and sold for development or other non-agricultural uses³. Given the age structure of Chatham County farmers a substantial amount of farmland is at risk of conversion to nonfarm uses.

Rapid industrial growth and the residential growth that accompanies it is a major concern. Toyota's battery plant at the Greensboro-Randolph Megawatt site is expected to add 1,750 jobs. VinFast, located in Chatham County, is expected to add 7,500 jobs, and Wolf speed, also in Chatham County, is expected to add 1,800 jobs. While this growth is welcome it will put pressure on farm and forest land, both through that converted to industrial use, and as the result of the demand for new housing.

There are benefits. Industrial growth generates technologies that open agricultural opportunities. As an example of such a development in the region that includes Chatham County, the recently announced joint venture between Deere & Company and Kreisel Electric GMBH to develop and produce hybrid and electric off-road equipment at a site adjacent to Deere & Company's Kernersville, North Carolina, manufacturing facility offers an opportunity to partner to train those interested in agribusiness in cutting edge technologies that may be applicable to agricultural needs.

This plan is grounded in three basic tenets:

1. Agriculture is an important component of Chatham County's economy.
2. Preserving farms and forests is in the public interest.
3. Farms and forests are sustainable natural resources.

North Carolina is blessed to have 8 million acres of farmland, but it's losing agricultural lands to development at a fast pace. In fact, the American Farmland Trust ranks North Carolina as the second most threatened state, behind only Texas, when it comes to the conversion of agricultural lands to other uses. As the state's population has increased, land has been removed

from agricultural production to provide housing and services to the growing population⁴.

From 2012 to 2020, North Carolina lost more than 8,900 farms and nearly 1 million acres of farmland⁵. During the time period from 2012 to 2017, Chatham County experienced a loss of 5% of its farmland⁶. Additional information and trends should be evaluated after the release of the 2022 Census of Agriculture figures for Chatham County.

The American Farmland Trust expects both North Carolina and Chatham County to convert a significant amount of farmland to non-farm uses between 2016 and 2040. North Carolina is expected to convert between 661,500 and 1,197,300 acres of farmland for development while Chatham County is projected to convert between 13,000 and 28,000 acres in the same period.³ The data shows that the majority of the development in both the state and county stems from low-density residential development, which is most attributed to subdivisions with large lot sizes. A smaller portion of the land transition is expected for high-density residential growth and commercial and industrial development. While growth is inevitable, planned growth can help to preserve the maximum acreage of farmland from being converted to other non-agricultural uses. The ranges are wide and divide the farmland attrition into three main development scenarios. This shows how much agricultural land can be saved by employing strategic commercial and residential development processes in communities⁷.

The North Carolina General Assembly has recognized the need for action through N.C. General Statutes section 106-744(e). That section states the requirements for a farmland protection plan as follows:

As used in subsection (c2) of this section, a countywide farmland protection plan means a plan that satisfies all of the following requirements:

- (1) The countywide farmland protection plan shall contain a list and description of existing agricultural activity in the county.

³ These estimates predate the current surge in industrial and residential development in Chatham County and the surrounding Piedmont region.

- (2) The countywide farmland protection plan shall contain a list of existing challenges to continued family farming in the county.
- (3) The countywide farmland protection plan shall contain a list of opportunities for maintaining or enhancing small, family-owned farms and the local agricultural economy.
- (4) The countywide farmland protection plan shall describe how the county plans to maintain a viable agricultural community and shall address farmland preservation tools, such as agricultural economic development, including farm diversification and marketing assistance; other kinds of agricultural technical assistance, such as farm infrastructure financing, farmland purchasing, linking with younger farmers, and estate planning; the desirability and feasibility of donating agricultural conservation easements, and entering into voluntary agricultural districts.
- (5) The countywide farmland protection plan shall contain a schedule for implementing the plan and an identification of possible funding sources for the long-term support of the plan.

The 2009 Plan was adopted by the Chatham County Board of Commissioners on March 1, 2010. It consists of two parts, the Agricultural Land Use Plan, and the Agricultural Economic Development Plan. The 2009 FPP was recognized and augmented by the 2017 Comprehensive Plan that also recommended that the 2009 FPP be updated. As set forth in the following tables, much has been accomplished since the 2009 Plan was adopted. This update is an opportunity to build on that work and address disaster resilience and mitigation, impacts of climate change, pandemic resilience, biodiversity, and the changing needs and opportunities of Chatham County agriculture, horticulture and forestry.

2009 Agricultural Land Use Plan: Focus Area 1: Working Lands Protection			
<p>Recommendation 1: Coordinate Farmland Protection Outreach, Education, & Policy Development</p>	<p>Recommendation 2: Strengthen the Chatham County Voluntary Agricultural District Program</p>	<p>Recommendation 3: Develop a Strategic Farmland Map</p>	<p>Recommendation 4: Build Support for a County Working Lands Protection Program</p>
<p>During the development of the 2017 Comprehensive Plan, the project leaders coordinated with SWCD, Extension, and Ag Advisory Board. Staff developing the UDO and the Moncure Small Area Plan coordinated with SWCD and Extension. Extension conducts farm tours. Prior to Covid, there was an annual farm and industry tour where Cooperative Extension staff took the public to visit working farms and agribusiness operations. Cooperative extension staff does a lot of Ag Literacy work--social media posting, web posts, farm profiles on website. See website at https://growingsmallfarms.ces.ncsu.edu/</p> <p>Chatham County hired a Farmland Preservation Coordinator in August 2023, who will administer these responsibilities</p>	<p>A significant reorganization of the program was completed in 2019. The ordinance was updated, and the program was revamped. <https://www.chathamcountync.gov/home/showpublisheddocument/45262/637660822765100000> All participants were asked to reapply so record-keeping could be updated. Letters were sent to all prior VAD farms to re-enroll, letters are being sent to all PUV enrolled parcel owners. Press releases were issued to provide information. Current efforts underway include creating a database system for participant management that can be searched and sorted for different information and field queries. Work is underway on an initiative to install signs for landowners who can't install them themselves. Moving forward, applicants will receive site visits as part of farmland preservation outreach program.</p>	<p>Mapping identifying agricultural assets and participation in VAD and working lands easements was conducted in 2017. There remains a need for strategic mapping identifying priority tracts for conservation. There is currently have no prioritization analysis for targeted farmland preservation.</p>	<p>Updating of subdivision and zoning regulations as part of UDO Process is underway. The Chatham Agricultural Preservation & Development Trust Fund was established with a portion of Article 46 tax revenues and budgeted revenue into that fund beginning with the establishment of that tax in 2020 to the current fiscal year. With those revenues, the County created a Farmland Preservation Coordinator position to oversee the current FP programs and develop new programs as recommended by the FPP.</p>

2009 Agricultural Land Use Plan: Focus Area 2: Future County Policy and Planning		
<p>Recommendation 1: Formally Adopt the Agricultural & Farmland Preservation Plan (FPP) as a County Policy Guidance Instrument</p>	<p>Recommendation 2: Update Subdivision Regulations & Zoning to Meet the Needs of Agriculture and the Community</p>	<p>Recommendation 3: Explore Means to Ensure that Agriculture Has Long-Term Access to Water Supplies</p>
<p>The 2009 Plan was adopted by the Chatham County Board of Commissioners on March 1, 2010. It consists of two parts, the Agricultural Land Use Plan, and the Agricultural Economic Development Plan. The 2009 FPP was recognized and augmented by the 2017 Comprehensive Plan that also recommended that the 2009 FPP be updated.</p>	<p>According to County Manager and the Planning Department, agricultural preservation will be a priority objective in ongoing Unified Development Ordinance process: https://www.recodechathamnc.org/ Planning Staff utilized the policy recommendations from ag stakeholders in developing the goals/recommendations in the 2017 Comprehensive Plan. Those provided policy direction and guidance for code drafting on subdivision and zoning regulations during the ongoing Unified Development Ordinance.</p>	<p>A comprehensive review of water resources and issues was recommended by the Planning Board, but the study has not been initiated. Planning Board Well Subcommittee work: https://www.chathamcountync.gov/government/departments-programs-i-z/planning/boards-committees/planning-board-subcommittees/planning-board-well-subcommittee. Chatham SWCD & NRCS have active programs to help eligible ag producers access water for their operations, improved water efficiency, with cost share assistance when available (dependent upon Federal funding).</p>

2009 Agricultural Land Use Plan: Focus Area 3: State and Federal Advocacy		
Recommendation 1: Advocate for Farm- and Forestry-Friendly State Agricultural Policies	Recommendation 2: Seek Innovative Means to Integrate Working Lands Protection into the Jordan Lake Rulemaking Process	Recommendation 3: Advocate for Integration of Regional Agricultural and Land Development Policies
The role of the Farmland Preservation Coordinator (FPC) is to stay abreast of statewide policies and programs but not clear that the FPC can participate in state and federal advocacy on an official level.	The new Jordan Lake One Water (https://www.jordanlakeonewater.org/) claims that it will include agricultural conservation in its planning and policy work--not clear how much of a focus it will be at this point, however. Chatham SWCD reports Nutrient reductions to Division of Soil & Water for Jordan Lake reporting annually and participates in stakeholder meetings.	It is not clear that the FPC can advocate in an official role.

2009 Agricultural Economic Development Plan: Focus Area 1: Agribusiness Attraction, Retention, and Expansion		
Recommendation 1: Develop a Forestry and Agribusiness Retention, Expansion, and Attraction Plan	Recommendation 2: Explore the Feasibility of a Dedicated Agribusiness Park in Cooperation with Siler City	Recommendation 3: Enhance Business Development Programs
The Conservation Trust for North Carolina has done a great deal of useful work in this area. See https://ctnc.org/triangle-farms-for-food-strategy-action-plan/ .	Not pursued.	Not pursued.

2009 Agricultural Economic Development Plan: Focus Area 2: Agricultural Market Expansion		
Recommendation 1: Develop an Integrated Marketing System that Expands Opportunity to Direct Market and Wholesale Level Trade	Recommendation 2: Create an Alternative Energy Development Program	Recommendation 3: Support Public/Private Development of an Agritourism, Retail, and Culinary Arts Center
	<p>The Chatham County Climate Change Advisory Committee has developed relevant data or reports. See https://www.chathamcountync.gov/government/departments-programs-a-h/environmental-quality/climate-change-advisory-committee</p> <p>There are NRCS Climate-Smart Mitigation Activities that include programs for Energy audits and improvements. See https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/climate/climate-smart-mitigation-activities</p>	Not pursued.

Focus 2009 Agricultural Economic Development Plan: Focus Area 3: Agribusiness Public Policy, Education, and Regulation				
Recommendation 1: Create an Outreach and Public Relations Program for Agribusiness	Recommendation 2: Expand Education and Training Programs for Agribusiness	Recommendation 3: Develop a Farmer Recruitment Program	Recommendation 4: Support Regional Agricultural Leadership Development	Recommendation 5: Enhance Labor Force Conditions
Not pursued.	<p>Advanced farm management training has been conducted by Extension (Debbie Roos). These include programs for people on farm taxes. The turnout has been excellent. She did four webinars in 2022. Great responses. She is planning to do another one in 2024 on taxes, forming an LLC, other tax and business planning issues.</p>	<p>Cooperative Extension is doing a small-farm boot camp. This Extension program is joint with other counties. It is an 8-week program.</p> <p>NC Farm School: Multi-county. NC Extension Farm School. Moves around but Chatham has had it here. Statewide program that Extension does. We typically have Chatham folks doing it. It's not a program every year. They tend to be more focused on livestock farmers. Debbie Roos helps teach classes and</p>	<p>The state-wide Extension program, the North Carolina Tobacco Trust Fund Commission Agricultural Leadership Development Program (ALDP) is a College of Agriculture and Life Sciences leadership program to develop personal and civic leadership skills in North Carolina farmers and agricultural professionals. T</p> <p>Read more at: https://calsleadership.ces.ncsu.edu/about-calsleadership/</p>	<p>The NC Agromedicine Institute operates state-wide to promote the health and safety of farmers, fishermen, foresters, their workers, and their families through research, prevention/intervention, and education/outreach. See https://ncfarmlink.ces.ncsu.edu/2023/08/nc-agromedicine-institute/</p> <p>NC AgrAbility assists farmers or farmworkers struggling mentally or physically to remain in, or Veterans entering into, production agriculture in all 100 North Carolina counties and on tribal lands. See: https://www.ncagrability.org/</p>

		<p>organizes farm tours. Extension also refers people to the NC Farmlink Program: https://ncfarmlink.ces.ncsu.edu/about-nc-farmlink/. Cooperative Extension also has an NC State lawyer Andrew Branan that has developed a lease template that Debbie Roos has provided to Chatham County farmers.</p>		
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Overview of Chatham County

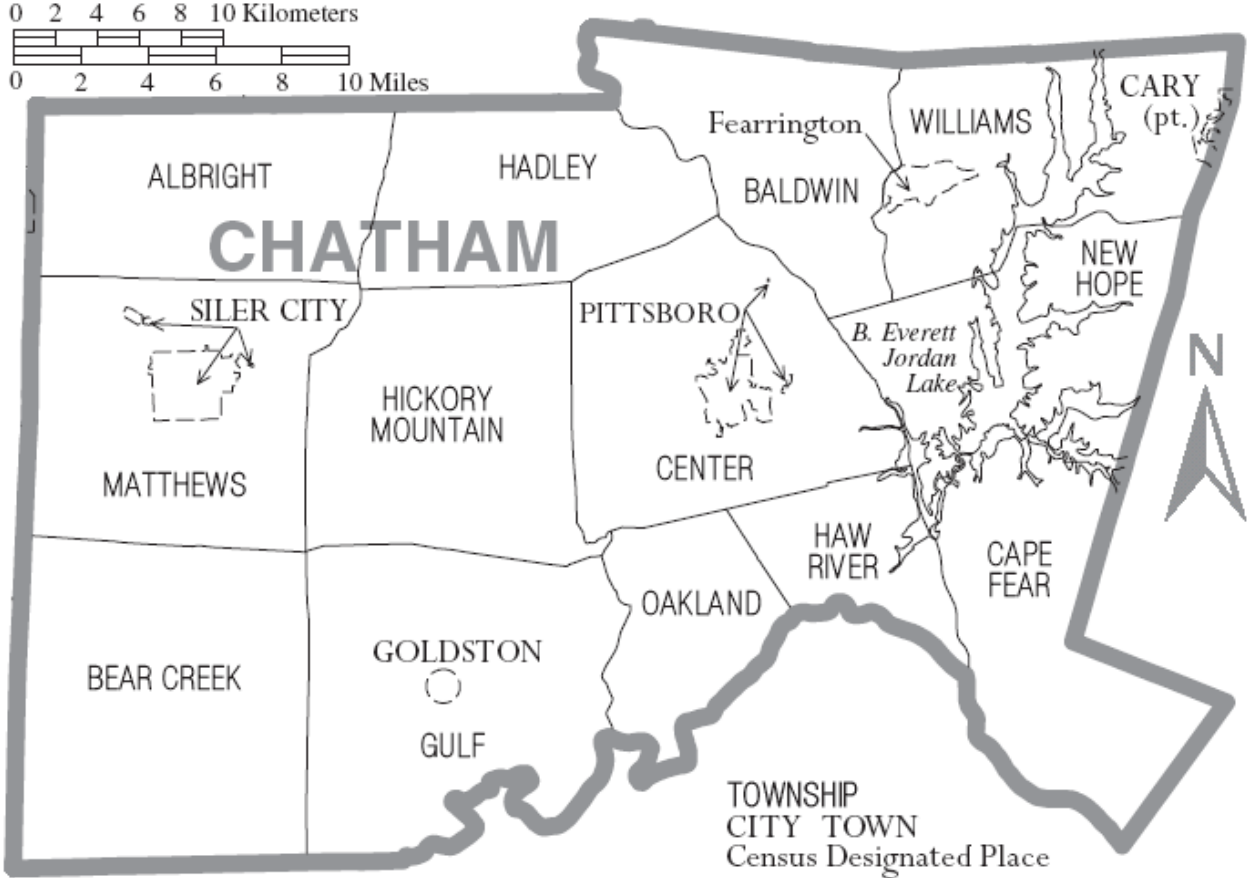
Chatham County was established by legislation of the Colonial Assembly of North Carolina. The legislation was introduced on December 5, 1770, and became effective on April 1, 1771. Chatham County was created from the southern part of Orange County. It was created in part to facilitate residents that otherwise would have had to travel to Hillsborough to conduct business and in part in response to the grievances that led to the War of Regulation (1770-71). The county is named for William Pitt, Earl of Chatham, who was a member of parliament and a defender of colonial rights.

Prior to European settlement, the land that became Chatham County was inhabited by people that spoke languages of the Iroquoian and Siouan language groups. Early European settlers included Scottish, English and German settlers. These early European settlers included a Quaker settlement established in 1751. Farms were relatively small compared with those to the east of Chatham County. Nonetheless there was significant demand for enslaved labor. From the 1790 census it has been estimated that 17% of Chatham County's population was enslaved.⁸

According to the US Census July 1, 2022, estimates, Chatham County has a population of 79,864. This figure represents a 4.7 percent increase from July 1, 2020. The county population is 82.3 percent White (72.3% excluding Hispanic or Latino), 11.7 percent African American and the remaining six percent include other races as follows: American Indian or Alaskan Native (1.2%), Asian (2.6%), Native Hawaiian and Other Pacific Islander (0.2%), and two or more races (2%). Census data indicated that 12.1% of the Chatham County's population is Hispanic or Latino⁹.

Chatham County has the following incorporated areas: Pittsboro, Siler City, and Goldston.¹⁰ Pittsboro is the county seat and is located in the heart of the County. Siler City is the largest town in Chatham County. It is in the western part of the county. Goldston is the smallest town, with an elected mayor and town board but no full-time paid staff. Small portions of Cary and Apex are in Chatham County. Most of Apex and Cary are in Wake County. Residents of these towns that are in Chatham County receive their services either from their respective cities or from Chatham County.

Chatham County is divided into thirteen townships which are Albright, Baldwin, Bear, Cape Fear, Center, Gulf, Hadley, Haw River, Hickory Mountain, Matthews, New Hope, Oakland, and Williams as shown on this map:



Map 1: Chatham Township Map

Townships are not political subdivisions. They are used for Census and other purposes. In additions there are many unincorporated communities in Chatham County. On the north Chatham County borders Alamance, Orange and Durham Counties, on the west, Randolph County, on the south Moore and Lee Counties, and on the east Wake and Harnett Counties.

Economy

The North Carolina Department of Commerce ranks each of the state’s 100 counties into three tiers based on the economic well-being of each county. Tier 1 is the most distressed, and Tier 3 is least distressed. In 2023, Chatham

County's designation Tier 3 as it has been for the recent past. Its rank was 98 which means that only two counties were rated more prosperous. The four factors used in calculating the rating are average unemployment rate, median household income, percentage growth in population, and adjusted property tax base per capita. North Carolina uses these designations to encourage economic growth through incentives in distressed counties. Chatham's tier status provides fewer opportunities for certain grants and other incentives aimed at stimulating the county economies.¹¹


In 2021, the median household income in Chatham County is \$76,791 compared to the state figure of \$60,516. 12.2 percent of Chatham's population is considered below the poverty level, lower than the state average at 13.4 percent¹².

Less than three percent (2.3%) or 352 working Chatham County residents work outside North Carolina. Eighty-two percent or 24,311 residents work within North Carolina but outside Chatham County.⁴ More than eighteen percent or 5,391 residents work within the county.¹³ The 2021 annual unemployment rate for Chatham County was 2.8 percent as reported by the NC Department of Commerce which is higher than the 2021 North Carolina unemployment rate of 4.8 percent.¹⁴

The agriculture and agribusiness sectors (including forestry and natural fibers) provided jobs for 19.7 percent of Chatham County's working residents according to a study completed by Dr. Mike Walden in 2008¹⁵. As the County has urbanized, that percentage has likely declined; however, more recent data is not available.

⁴ See page 16 of the 2017 Comprehensive Plan. 58% of all potential retail sales leak out to other counties.

The following table is from the county summaries section of the NC Department of Agriculture and Consumer Services Agricultural Statistics - Annual Statistics Book:¹⁶

CHATHAM COUNTY						
Census of Agriculture - 2017		Crops - 2021	Acres Harvested	Yield	Production	Rank
Total Acres in County	436,696	Corn for Grain: Bu.	3,150	149	470,000	58
Number of Farms	1,116	Cotton: Lbs.: Production in 480 Lb. Bales	*	*	*	*
Total Land in Farms: Acres	105,995	Peanuts: Lbs.	*	*	*	*
Average Farm Size: Acres	95	Soybeans: Bu.	2,700	35	93,900	71
Harvested Cropland: Acres	27,195	Sweet Potatoes: Cwt.	*	*	*	*
Average Age of Farmers	58.4	Wheat: Bu.	*	*	*	*
Average Value of Farm & Buildings	\$583,546,000					
Average Market Value of Machinery & Equipment	\$74,400,000					
Average Total Farm Production Expense	\$121,352					
		Livestock		Number	Rank	
		Broilers Produced (2021)		21,600,000	18	
		Cattle, All (Jan. 1, 2022)		33,000	3	
		Beef Cows (Jan. 1, 2022)		16,000	2	
		Milk Cows (Jan. 1, 2022)		600	17	
		Hogs and Pigs (Dec. 1, 2021)		*	*	
		Layers (Dec. 1, 2021)		285,000	16	
		Turkeys Raised (2021)		*	*	
		Cash Receipts - 2021		Dollars	Rank	
		Livestock, Dairy, and Poultry		122,118,796	25	
Crops		10,896,709	80			
Government Payments		1,714,907	55			
Total		134,730,412	34			

Chatham County is number 2 and 3 in the state for beef cows and all cattle. It is number 16 and 18 for layers and broilers produced, respectively. It is number 17 for milk cows. Total cash receipts, including livestock, poultry, row crops, and farm program payments were over \$134 million dollars for 2021.

Forestry is an important component of agriculture in Chatham County and an important part of many row crop and livestock operations. The value of timber harvested by landowners was about \$7.4 million for 2020. NC Extension estimates that the 2020 contribution of the forest sector to Chatham County's economy was about \$297 million. The forest sector supported 1,247 jobs with a payroll of about \$63 million. The following table is from the county summaries section of the Forestry Extension website:¹⁷



2020 Forestry Contributions

Chatham County, NC

Timberland⁸ & Reserved Forestland⁹ by Ownership

Ownership	NC (Acre)	Chatham (Acre)
Public Timberland	2,565,308	7,334
Private Timberland	15,482,714	263,062
Reserved Forestland	636,455	0
Total Timberland & Forestland	18,684,477	270,396
All Land	31,531,452	453,666
% Timberland	5 %	6 %
% Reserved	2 %	0 %



Chatham County has about 263,062 acres of privately owned timberland.



Landowners in this county received an estimated stumpage harvest value of \$7.4 million.



The forest sector in this county had a total economic contribution of approximately \$297 million in industry output to the county's economy.

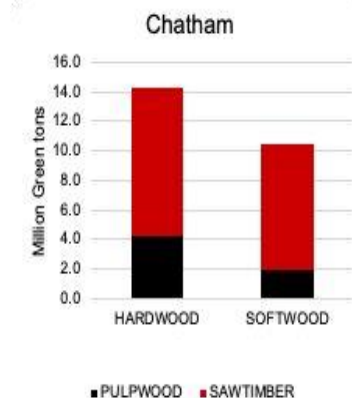


The forest sector in this county supported 1,247 total jobs with a payroll of about \$63 million.

Economic Contribution¹ of the Forest Sector

Employment ² (jobs)	Labor Income ³ (million \$)	Value Added ⁴ (million \$)	Industry Output ⁵ (million \$)
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Timber Inventory



Direct Impact⁶

Forestry	6	0.29	0.30	0.33
Logging	22	0.76	0.78	1.49
Primary solid wood products	175	8.81	12.37	50.36
Secondary solid wood products	657	36.77	61.39	189.36
Primary paper & paperboard products	-	-	-	-
Secondary paper & paperboard products	-	0.01	0.01	0.13
Tota	861	47	75	242

Total Impact⁷

Forestry	6	0.31	0.34	0.40
Logging	39	1.16	1.27	2.28
Primary solid wood products	274	12.88	18.56	63.47
Secondary solid wood products	928	48.21	79.80	230.26
Primary paper & paperboard products	-	-	-	-
Secondary paper & paperboard products	1	0.02	0.02	0.16
Total	1,247	63	100	297

Timber Growth vs. Harvest Volumes¹⁰

Volume	NC	Chatham
Million Green tons		
Growth	57.3	1.2
Harvest	31.8	0.9
Growth:Harvest Ratio	1.8	1.3

Cost of Services

American Farmland Trust conducted 151 cost-of-community-services (CoCS) studies, including some in North Carolina, to determine the contributions made to the economy by land uses. The studies focus on three main land uses: commercial and industrial, working and open land, and residential. Agricultural and commercial land uses require fewer public services than residential land uses, saving money for the county. The median results for the cost of community services studies from the American Farmland Trust revealed that, for each \$1 of revenue received from each land use,¹⁸:

- Residential land cost \$1.16 in public services.
- Working and open lands (including agriculture and forestry) require \$0.37 for public services.
- Commercial and industrial land cost \$0.30 for public services¹⁹.

Along with this Farmland Protection Plan, the Lois G. Britt Agribusiness Center also completed a Cost of Community Services Study for Chatham County in 2023. The study found that Chatham County's cost of services provided to the three land uses are very similar to those conducted by the American Farmland Trust. Additional information is included below. These results show that there is a benefit for county leaders to focus on agricultural development and farmland protection due to the reduced cost of services required for those land uses.

For each \$1 of revenue received from each land use, the Chatham County Cost of Community Services Study concluded that:

- Residential land cost \$1.18 in public services
- Commercial and industrial lands cost \$0.29 in public services
- Agricultural land and forestland cost \$0.35 to provide public services

A CoCS Study measures the direct benefit to a county. It does not include indirect benefits such as ecosystem services. Ecosystem services include benefits of farm and forest land such as improved water quality, flood prevention, and carbon sequestration. Historically landowners have not been paid for ecosystem services for various reasons including the difficulty in measuring them.²⁰

Infrastructure and Transportation.

The major federal and state highways in Chatham County are:²¹

Federal highways

- US 64 is an east-west highway, with divided four lanes nearly the entire stretch. It cuts through Pittsboro and Siler City, connecting both to the Triangle and the Triad. It joins NC 49 in Asheboro, which takes you to Charlotte.
- US 15/501 is a north-south highway and is four lanes all the way to Chapel Hill, but also links the county to Sanford where it connects with US 1.
- US 421 is a divided four-lane highway connecting Siler City and other parts of the county to Greensboro and Sanford, where it connects with US 1. This is the future route of Interstate 685. See <https://www.wral.com/story/new-interstate-planned-for-middle-of-the-state-could-bring-key-economic-safety-benefits/19998733/>
- US 1 is a major north-south, four-lane artery of the state. It provides easy access to and from the southeastern part of the county around Moncure.

State highways

- NC 87 connects Pittsboro to the Burlington area where it meets up with Interstate 85. It also tracks 15/501 south of Pittsboro to Sanford.
- NC 902 runs from Pittsboro to Bear Creek and Goldston, connecting all of these to Randolph County and US 220.
- NC 751 connects the eastern edge of the county to Durham, Research Triangle Park and Interstate 40.

Counties do not maintain roads and bridges in North Carolina.²² These are the responsibility of the state through the NC Department of Transportation. NC DOT considers the need to move farm equipment and vehicles in all phases of its road planning process. NC Farm Bureau has developed a guide for moving farm equipment and vehicles on highways.²³

Major airports²⁴

Raleigh-Durham International Airport²⁵

This is the closest major airport for most of Chatham County's residents. It is located between Durham and Raleigh near Interstate 40, which is 30 minutes or less from Pittsboro and Fearington Village areas. A wide range of major carriers serve the airport.

Piedmont Triad International Airport²⁶

Those living in Siler City or north of there can get to this airport in about 40 minutes or less. The airport is located just to the west of Greensboro near Interstate 40. Several major carriers serve the airport.

Utilities

Consistent with the general rural character of much of the County, there is limited water and sewer infrastructure outside of the incorporated municipalities.

Most new development is either centered on a community-based systems or on well and septic. Poor well flow in much of the County serves to limit some development and is a general concern to farmers who fear that more development will further impinge on well quality and restrict growth opportunities for agriculture. Limited water and sewer infrastructure causes development to occur in a dispersed manner.

Curb side pickup of solid waste is handled by private hauling services. About a third of solid waste is handled by County collection centers.

Electric power is provided by Duke Energy or the Central Electric Membership Corporation, depending upon the location in the county.

Broadband internet services availability and speed vary greatly from one location in the County to another. According to the 2017 Census of Agriculture, 79 percent of Chatham County farms have some internet access.

Public transportation is provided by the Chatham Transit network (CTN). It offers transportation around the County, in the towns of Slier City and Pittsboro, and to and from Chapel Hill.

Education

Chatham County Schools have over 8,900 students in attendance and employ over 1200 people. There are 20 public schools in Chatham County and some charter schools.

Central Carolina Community College (CCCC) provides associate degrees as well as non-degree workforce training. It has a top-ranked degree program in sustainable agriculture. Within commuting distance of the County are a wide variety of institutions of higher education.

Natural Attributes

Soils²⁷

Soils are classified into different associations which help determine a soil's suitability for different uses. Soil uses include growing crops, growing trees and residential and commercial construction. Chatham County has twelve major soil associations which are:

1. Georgeville-Badin-Nanford: These soils are gently sloping to steep, well drained soils that have a silt loam or silty clay loam surface layer and a clayey subsoil on uplands. These are located west of Jordan Lake, mainly along U.S. Highway 64. The landscape is Piedmont upland in the Carolina Slate belt. The landform is characterized by interstream divides, broad to narrow ridges, hill slopes, and side slopes with slopes ranging from 2 to 35 percent. This soil association composes about 35% (150,370 acres) of the County. The breakdown for the individual soils is: Georgeville soils – 45%, Badin soils -15%, Nanford soils - 10 percent, and minor soils - 30%, including Cid, Lignum, and Herndon soils. The major uses of the soils in this association are woodland, pasture and hayland, cropland, and urban development. The major concerns for the soil association are for cropland, erodibility on all slopes and equipment limitations on slopes greater than 15%; for woodland, erodibility and equipment use on slopes greater than 15%, for urban development, restricted permeability, low strength, and steepness of slope on slopes

greater than 15%; and for recreational development, steep slopes and erodibility.

2. Cid-Nanford-Lignum: These soils are gently sloping to steep, somewhat poorly drained to well drained soils that have a silt loam surface layer and a clayey subsoil on uplands. These are west of U.S. Highway 15-501 and Jordan Lake. The landscape is Piedmont upland in the Carolina Slate belt. The landform is characterized by interstream divides, broad to narrow ridges, hill slopes, and side slopes with slopes ranging from 2 to 30 percent. This soil association composes about 28% (123,238 acres) of the County. The breakdown for the individual soils is: Cid soils - 45%, Nanford soils - 15%, Lignum soils - 15%, and minor soils - 25 percent, including Badin, Georgeville, and Goldston soils. The major uses of the soils in this association are woodland, pasture and hayland. Soils in this association are moderately suited to pasture. Cid and Lignum soils have limited permeability and shrink-swell potential that limit their use for urban development.
3. Creedmoor-Green Level: These soils are gently sloping to moderately steep, somewhat poorly drained or moderately well drained, slowly to very slowly permeable soils that have loamy surface layers and a firm, moderately plastic to very firm, very plastic clay subsoil on uplands. Soils in this association are in the eastern part of the County around Jordan Lake, the west side of Harris Lake, eastward to the Wake County line, and northward to the Durham County line. The landscape is Piedmont Triassic Basin. The landform is characterized by interstream divides, broad to narrow ridges, hill slopes, and side slopes with slopes ranging from 2 to 15 percent. This soil association composes about 12% (51,658 acres) of the County. The breakdown for the individual soils is Creedmoor soils – 45%, Green Level soils - 30%, and minor soils - 25 percent, including White Store, Polkton, and Mayodan soils. The major uses of the soils in this association are woodland, public recreational facilities, cropland, pasture and hayland, and urban development. Concerns about these soils include Wetness, restricted permeability, shrink-swell potential, low strength, and, in some locations, erodibility and steepness of slope.

4. Callison-Lignum: These soils are gently sloping to strongly sloping, somewhat poorly drained or moderately well drained soils that have a loamy surface layer and a loamy or clayey subsoil on uplands. Soils in this association are in the western part of the County, mainly the area around Harper's Crossroad to the Randolph County line. The landscape is Piedmont upland in the Carolina Slate belt. The landform is characterized by broad interstream divides, ridges, side slopes, drainageways, and heads of drainageways with slopes ranging from 2 to 10 percent. This soil association composes about 8% (36,238 acres) of the County. The breakdown for the individual soils is: Callison soils – 45%, Lignum soils- 20%, and minor soils – 35%, including Nanford, Badin, Cid, Misenheimer, and Georgeville soils. The major uses of the soils in this association are woodland, pasture and hayland. Major management concerns are wetness, erodibility, and equipment use on steep slopes.
5. Wedowee: These soils are gently sloping to steep, well drained soils that have a loamy surface layer and a clayey subsoil on uplands. Soils in this association are in the northern part of the County, south of Chapel Hill. The landscape is Piedmont upland. The landform is characterized by ridges and side slopes with slopes ranging from 2 to 35 percent. This soil association composes about 5% (23,431 acres) of the County. The breakdown for the individual soils is: Wedowee – 80%, and minor soils - 20 percent, including Helena and Vance soils. The major uses of the soils in this association are woodland, pasture and hayland, and urban development. Management concerns include large stones and boulders in some areas, erodibility and equipment use on slopes over 15 percent.
6. Peawick-Riverview-Mattaponi: These soils are nearly level to strongly sloping, moderately well drained or well drained soils that have a loamy surface layer and a clayey or loamy subsoil; on low to high stream terraces and flood plains along major rivers and streams. Soils in this association are in the southern part of the County along the Deep River and the Cape Fear River. The landscape is Piedmont river and stream valleys. The landform is characterized by low to high stream terraces and flood plains with a slope of 0 to 15%. This soil association composes

about 3% (13,229 acres) of the County. The breakdown for the individual soils is: Peawick soils – 35%, Riverview soils – 20%, Mattaponi soils – 15%, and minor soils - 30 percent, including Chewacla, Wehadkee, State, Merry Oaks, and Moncure soils. The major uses of the soils in this association are cropland, woodland, pasture and hayland, and urban development.

7. Carbonton-Brickhaven: These soils are gently sloping to moderately steep, somewhat poorly drained or moderately well drained, slowly permeable soils that have a loamy surface layer and a clayey subsoil on uplands. Soils in this association are in the south-central part of the county along the Lee County line near the Gulf community. The landscape is Piedmont uplands in the Triassic Basin. The landform is characterized by interstream divides, heads of drainageways, ridges, and side slopes with slopes ranging from 2 to 30 percent. This soil association composes about 3% (12,207 acres) of the County. The breakdown for the individual soils is: Carbonton soils – 35%, Brickhaven soils - 30%, and minor soils – 35%, including Creedmoor, Green Level, Mayodan, and Iredell soils. The major uses of the soils in this association are woodland and strip mining for source material in manufacture of brick.
8. Mayodan: These soils are gently sloping to steep, well drained, moderately permeable soils that have a loamy surface layer and a clayey subsoil on uplands. Soils in this association are around the southern end of Jordan Lake and the town of Moncure. The landscape is Piedmont uplands in the Triassic Basin. The landform is characterized by interstream divides, ridges, and side slopes with slopes ranging from 2 to 30 percent. This soil association composes about 2% (7,865 acres) of the County. The breakdown for the individual soils is: Mayodan soils: 60%, minor soils - 40%, including Brickhaven, Carbonton, Creedmoor, Green Level, Riverview, and Peawick soils. The major uses of the soils in this association are woodland, recreational areas, pasture and hayland, cropland, and urban development.
9. Cecil-Pacolet: These soils are gently sloping to steep, well drained soils that have a gravelly sandy loam surface layer and a predominately clayey subsoil on uplands. Soils in this association are in the far southeastern panhandle of the county, southeast of Harris Lake to the Harnett County line and south to the Cape Fear River. The landscape is Piedmont uplands. The landform is characterized by interstream

divides, ridges, and side slopes with slopes ranging from 2 to 25 percent. This soil association composes about 2% (6,956 acres) of the County. The breakdown for the individual soils is: Cecil soils - 50%, Pacolet soils – 35%, and minor soils - 15 percent, including Wedowee and Louisa soils. The major uses of the soils in this association are woodland, pasture and hayland, and urban development.

10. Nanford-Badin: These soils are gently sloping to steep, well drained soils that have a silt loam surface layer and a clayey subsoil on uplands. Soils in this association are in the southwestern part of the county along the Moore County line. The landscape is Piedmont uplands in the Carolina Slate Belt. The landform is characterized by interstream divides, broad to narrow ridges, hill slopes, and side slopes with slopes ranging from 2 to 35 percent. This soil association composes about 1% (6,956 acres) of the County. The breakdown for the individual soils is: Nanford soils - 35%, Badin soils – 35%, and minor soils – 30% including Goldston, Georgeville, Callison, Tarrus, and Cid soils. The major uses of the soils in this association are woodland, pasture and hayland, cropland, and urban development.
11. Helena-Vance-Wedowee: These soils are gently sloping to strongly sloping, moderately well drained or well drained soils that have a loamy surface layer and a firm, moderately plastic, clayey subsoil on uplands. Soils in this association are in the north central part of the county along the Alamance County and Orange County lines. The landscape is Piedmont uplands. The landform is characterized by ridges, drainageways, and heads of drainageways with slopes ranging from 2 to 35 percent. This soil association composes about 1% (3,355) of the County. The breakdown for the individual soils is: Helena soils – 40%, Vance soils – 30%, Wedowee soils – 25%, and minor soils – 5% including Pittsboro soils. The major uses of the soils in this association are woodland, pasture and hayland.
12. Chewacla-Wehadkee: These soils are nearly level, poorly drained or somewhat poorly drained soils that have loamy surface and subsoil layers on flood plains. Soils in this association are in the northeastern corner of the county at the headwaters of Jordan Lake along the Durham

County line and along other major streams in the County. The landscape is Piedmont river and stream valleys. The landform is characterized by floodplains with slopes ranging from 0 to 2 percent. This soil association composes about 1% (3,355) of the County. The breakdown for the individual soils is: Chewacla soils – 60%, Wehadkee soils – 35%, and minor soils – 5%, including Peawick and Riverview soils.

The Soil Survey of Chatham County, North Carolina, provides detailed geographical location information for the soil classifications discussed above.²⁸

Agricultural Land Designations in Chatham County

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. According to the 2023 Custom Soil Resource

Report for Chatham County, North Carolina²⁹, Chatham County consists of about 453,599.7 acres of which 54.1 % (about 246,434.2 acres) is farmland of statewide importance, and 28.1% (about 127,077 acres) is prime farmland.⁵

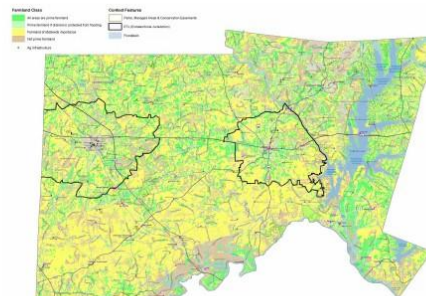
Following the recommendation of the 2009 FPP that Chatham County map its strategic agricultural lands, Chatham County conducted this mapping using four perspectives. These are enrolled in the Present-Use Value (PUV) Program, prime farmland, an ag suitability analysis based on even weights, and an ag suitability analysis based upon weights from the 2016 ag survey that the County conducted. This effort was reflected in the future land use map incorporated into the Chatham County Comprehensive Plan.³⁰

⁵ Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. https://efotg.sc.egov.usda.gov/references/public/LA/Prime_and_other_Important_Farmland.html

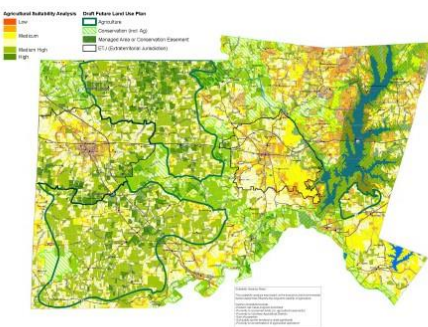
PRESENT USE VALUE



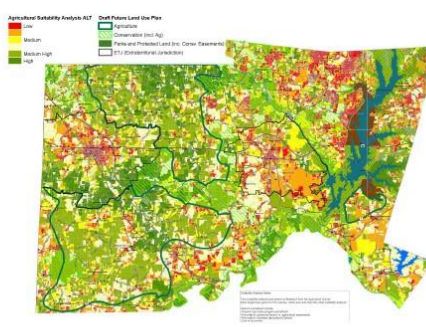
PRIME FARMLAND



AG SUITABILITY ANALYSIS - EVEN WEIGHTS



AG SUITABILITY ANALYSIS - WEIGHTS FROM AG SURVEY



THE 2009 FARMLAND PROTECTION PLAN RECOMMENDED MAPPING STRATEGIC AGRICULTURAL LANDS IN THE COUNTY AND ESTABLISHING LAND USE POLICIES TO PROTECT THEM. THE MAPS ABOVE SHOW SOME OF THE INPUTS THAT WERE USED TO IDENTIFY AGRICULTURAL LANDS ON THE FUTURE LAND USE MAP.

Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable. Chatham County has 246,434.2 acres of farmlands of statewide importance.

Another descriptor of land as prime farmland is drained and either protected from flooding or not frequently flooded during the growing season. Out of the prime farmland acreage listed above, Chatham County has 18,393 acres of farmland in this description.

Forestry

Chatham County forestland totals 270,396 acres, with 97 percent owned by private landowners. According to North Carolina Cooperative Extension, Chatham County landowners harvested \$7.4 million in timber in 2020. The total forest industry economic impact to Chatham County was \$297 million. One thousand, two hundred and forty-seven (1,247) people are employed in the Chatham County forest industry, with a total payroll of \$63 million³¹. Chatham County forests support a variety of timber processing facilities in or near the County.³²

The timber inventory in Chatham County grew by 1.24 million green tons with 0.92 million green tons harvested for a ration of 1.35. This translates into forest growth in 2020; however, the amount of forest growth is significantly lower than for the state. The growth:harvest ratio is 1.8 for all of North Carolina.

Chatham County: The State of Agriculture

The number of farms in Chatham County in 2017 decreased by 2% from 2012, to 1,116 according to the 2017 US Census of Agriculture. Land in farms decreased by 5% to 105,995 acres.

The average farm size decreased by 3% to 95 acres from 2012 to 2017. Of the 105,995 total acres of farmland in Chatham County in 2017.

The economic impact of the agriculture sector in Chatham County is considerable. The market value of products sold in 2017 was \$171,150,000. In addition, Chatham County farmers received \$103,000 in government payments and \$3,293,000 in other farm-related income. Net cash farm income was \$39,117,000. Farm production expenses were \$135,429,000, representing revenue to suppliers and labor much of which was likely based in Chatham County.

The per farm average of market value of products sold was \$153,360. The average per farm net cash farm income was \$35,051. This suggests that the typical farmer in Chatham County has family income from non-farm sources. This is confirmed by the 2017 Census of Agriculture data on farms by value of sales and farms by size (acres).

Figure 1 illustrates the land in farms by land use in the 2017 Census of Agriculture with more land (36%) of land in farms being used for pasture³³.

**Chatham County, NC Land in Farms 2017 By
Land Use**

■ Cropland ■ Pastureland ■ Woodland ■ Other

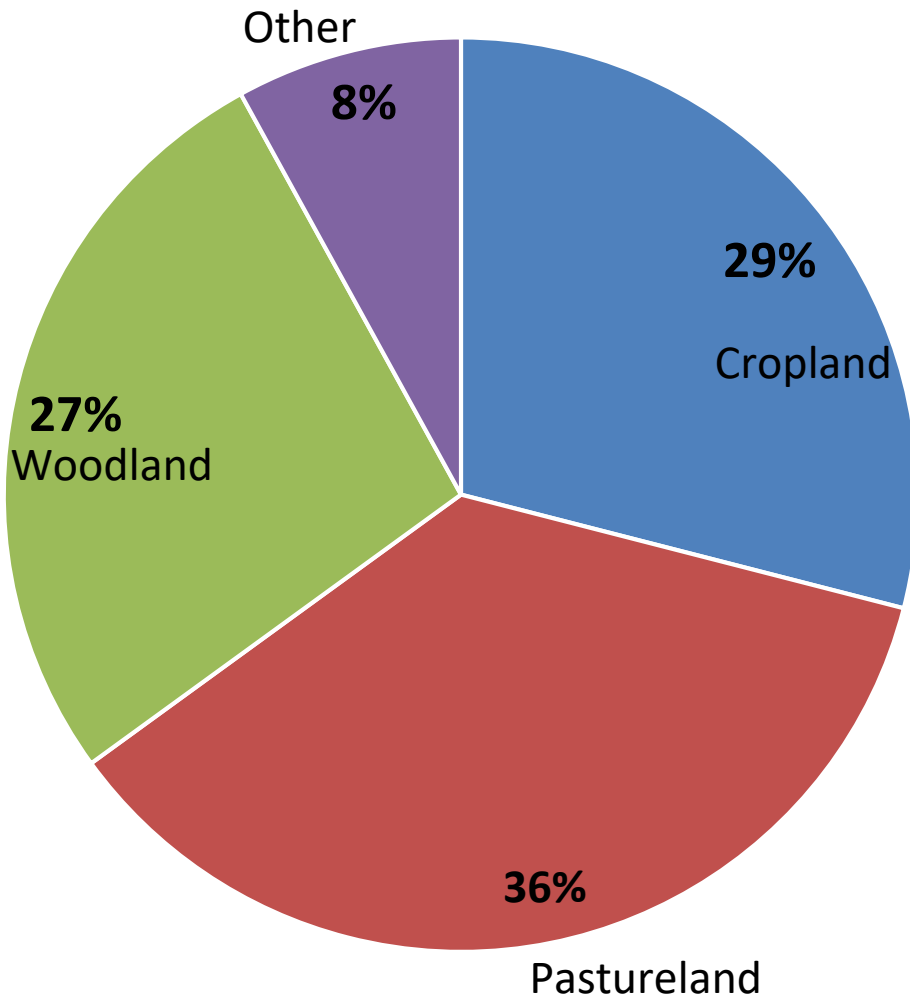


Figure 1. Chatham County, NC Land in Farms by Land Use in 2017 Source: 2017 Census of Agriculture, Chatham County, NC Profile.

Land use practices indicate how farmers manage land resources in crop production. These practices include no-till, reduced till, intensive till, and cover crops. According to the 2017 USDA Census of Agriculture, 7 percent of farms in Chatham County utilize no till practices, 5 percent of farms implemented reduced till, three percent utilize intensive till and six percent of farms used cover crops.

It is important to note the impact of agriculture to Chatham County's economy and to highlight the county's rank in NC agricultural production. This information is available for 2021 as published in the 2022 NC Agricultural Statistics Book from the North Carolina Department of Agriculture and Consumer Services' Division of Agricultural Statistics in partnership with the National Agricultural Statistics Service and the Census of Agriculture. The impact of agriculture in Chatham County in 2021:

*Agricultural cash receipts in Chatham County totaled \$134,730,412⁶, for a rank of 34th in the state

*Chatham County ranked 2nd in the state in beef cattle production

*Chatham County ranked 3rd in the state in all cattle production and cash receipts from cattle

*Chatham County ranked 16th in the state in total layers

*Chatham County ranked 17th in the state in total dairy cattle

*Chatham County ranked 58th in the state in corn production

*Chatham County was 71st in the state in soybean production³⁴

According to the 2021 cash receipts, published in the 2022 NC Agricultural Statistics book, Chatham County farmers had total cash receipts of \$

⁶ For those interested, the methodology for calculating this and other numbers below is described in section 2 of the 2022 NC Agricultural Statistics Book. It is not surprising that the 2021 agricultural cash receipts should be lower than the 2017 market value of products sold. First, the two statistics measure different things. Agricultural cash receipts are the cash received by farmers whereas the market value of products sold is the total value of product produced. For farmers producing under contract such as broiler and tobacco producers, the cash received represents a contract payment. In most years the value of the product produced is higher than the contract fee paid to the farmer for growing the product. In addition, the market value of products sold is for 2017, whereas the agricultural receipts is based on date for 2021. Both prices and production levels fluctuate substantially.

134,730,412. This was a significant increase from the 2020 total of \$ 101,968,769.³⁵ Crops accounted for \$10,896,709 (8%) of cash receipts in 2021 while livestock, dairy, and poultry accounted for \$122,118,796 (91%). The remaining \$1,714,907 (1%) was received from government payments³⁶.

Farmers markets and roadside stands are an important part of the agricultural economy in Chatham County. Eleven percent of Chatham County farms sell directly to consumers totaling \$1,127,000 in 2017³⁷.

Livestock

In 2021, Chatham County farmers realized cash receipts from livestock, dairy and poultry of \$122,118,796, ranking the county 25th in the state of North Carolina. This included production of 21.6 million broilers, 33,000 cattle, and eggs from 285,000 layers³⁸.

Crops

In 2021, Chatham County farmers earned a total of \$52,066,404 from crop production. Production of major crops in Chatham County in 2021 includes³⁹:

- Corn for grain, 3,150 acres, yielding 470,000 bushels
- Soybeans, 2,700 acres, yielding 93,900 bushels

Forestry

Chatham County forestland totals about 270,396 acres, with 97 percent owned by private landowners. According to North Carolina Cooperative Extension, Chatham County landowners harvested \$7.4 million in timber in 2020. The total forest industry economic impact to Chatham County was \$297 million. One thousand, two hundred and forty-seven people are employed in the Chatham County forest industry, with a total payroll of \$63 million⁴⁰.

The timber harvest was 0.92 million green tons with growth estimated at 1.25 million green tons. At 60%, the majority of the land in Chatham County is in forest⁴¹.

Farmer Demographics

As stated in the 2017 US Census of Agriculture, the number of Chatham County farmers was 1,752 with 140 under 35 years of age, 929 between 35 and 64 years of age, and 683 age 65 or older. Principal operators by gender were 1,065 male and 687 female. The majority (about 98%) of farm owners in Chatham County are white⁴².

According to the 2017 US Census of Agriculture, only 79% of Chatham County farms have access to the internet. Ninety-eight percent are family farms. Those that farm organically represent 2% of Chatham County farms. Tens percent sell directly to consumers and 22% hire labor.

Farm and Forest Protection Programs

Present-Use Value (PUV) Program

The PUV Program is a program established by N.C.G.S. §§ 105-277.2 to .7 and administered by the county assessor through which qualifying property can be assessed, for property tax purposes, based on its use as agricultural, horticultural or forest land. The present use value is the value of the land based solely on its ability to produce income. Qualifying property is assessed at its present-use value rather than its market value. The tax office also maintains a market value for the land, and the difference between the market value and the present-use value is maintained in the tax records as deferred taxes. When land becomes disqualified from the program, the deferred taxes for the current and three previous years, with interest, will usually become payable and due.

The maximum valuation allowed by statute for agricultural land is \$1,200. Should land cease to qualify for the PUV Program, the county assessor shall remove it from the program and subject owner to rollback taxes. The amount of rollback is calculated as the difference between the tax that would have been due based upon fair market value (FMV) and the value of the land in a qualifying use. The sum of that difference for the prior three years is the amount of the rollback tax. The property will be taxed based upon its FMV in the year that the disqualifying event occurs.

Basic Requirements

Minimum acreage of production land:

- 10 acres for agricultural use
- Five acres for horticulture use
- 20 acres for forest use

Production must follow a sound management plan.

Agricultural and horticultural land must have at least one qualifying tract that has produced an average gross income of at least \$1,000 for the three years preceding the application year.

Forestland must follow a forest management plan.

Benefits

The ability of farm, horticultural, or forest landowners to avoid taxation at FMV is a critical factor in the decision to keep land in farm, forest, and horticultural uses is a critical factor in the decision to forego conversion to higher valued uses. Without the PUV Program, it is likely that little or no land in agricultural, forestry, or horticultural uses would remain in the most urbanized of North Carolina's counties.

More information can be found at PUV Program can be found in the Present-Use Value Program Guide published by the N.C. Department of Revenue.⁴³

Voluntary Agricultural Districts (VAD)

Established by N.C.G.S. §§ 106-737 to 743 and administered at the county level, Voluntary Agricultural Districts are designated areas where commercial agriculture will be encouraged and protected. The purposes of the districts are to increase identity and pride in the agricultural community and to increase protection from nuisance suits and other negative impacts on properly managed farms. A copy of Chatham County's Voluntary Agricultural District ordinance is included in Appendix 1 of this document⁴⁴.

Requirements

Land must be enrolled in the Present-Use Value program or otherwise be determined to meet the qualifications of the program.

The landowner must enter into a revocable agreement to limit development for a 10-year period.

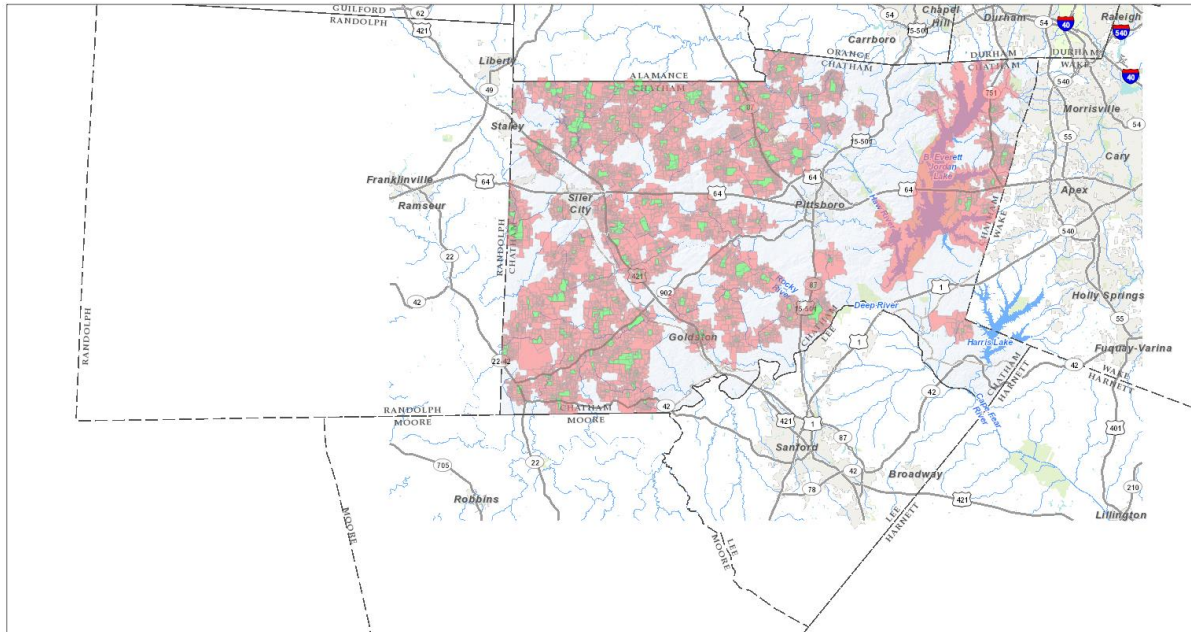
Benefits

- Notification to buyers of nearby property that they're moving into an agricultural area
- Abeyance of water and sewer assessments
- Public hearings on the condemnation of farmland
- Stronger protection from nuisance suits
- Representation by an appointed board regarding concerns on threats to the agricultural sector

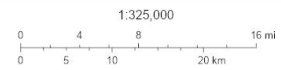
Enhanced Voluntary Agricultural Districts

Established by N.C.G.S §§ 106-743.1 to .5, an Enhanced Voluntary Agricultural District is a VAD formed of one or more farms that are subject to an IRREVOCABLE 10-year agreement to limit development. In return for the condition of irrevocability, the landowner receives the added benefits of being able to receive 25 percent of gross revenue from the sale of non-farm products and still qualify as a bona fide farm and being eligible to receive up to 90 percent cost-share assistance from the Agricultural Cost-Share Program. A copy of Chatham County's Voluntary Agricultural District ordinance, including Enhanced Voluntary Agricultural District, is included in Appendix 1 of this document⁴⁵.

VAD Parcel Reporting



October 12, 2023



Chatham County, Chatham County GIS

Nicholas Haffele
Chatham County, Chatham County Tax Department | Chatham County, Chatham County GIS

Map 2- Chatham County Voluntary Agricultural District Acreage⁴⁶ VAD farms are in green.

Conservation Easements

A conservation easement is a written agreement between a landowner and a qualified conservation organization or public agency under which the landowner agrees to keep the land available for agriculture and to restrict subdivision, non-farm development and other uses that are incompatible with commercial agriculture⁴⁷.

Basic Requirements

Permanently foregoing the right to subdivide or develop the land being conserved. There will be other limitations on activities to preserve the land's productivity, environmental values and rural character. Cash payments in the range of \$20,000 to \$40,000 are needed to cover the costs of the transaction. These costs are for legal services, a survey, an appraisal, long-term stewardship services provided by the conservation partner and other miscellaneous activities. In some cases, grant funds will cover these costs⁴⁸.

Other Information

A portion of the property can be left out of the easement, thereby providing an area for future homes and other non-farm activities.

Agricultural activities, including forestry, are allowed under the agreement.

Despite the term "easement," access to the public is not provided by the agreement.

The value of a conservation easement is determined by a licensed land appraiser and is typically between 25 percent and 75 percent of the land's market value.

A periodic inspection of the property is required to ensure that development does not occur. This provision will be included in the agreement.

The agreement is recorded on the county's land records and runs with the title. All future landowners must comply with the terms and conditions of the agreement.

The decision about who should hold an easement is a complex one. Private land trusts are not subject to the annual budgetary process that is characteristic of government. Many private land trusts have large donor networks that can be called upon to support their efforts. Governments may wish to hold easements that protect critical infrastructure such as public water supplies. Cooperation between land trusts and governments often provides the best of both worlds.

Financial Benefits

If the conservation easement is donated, then the landowner will likely qualify for a federal income tax deduction and a state income tax credit. The value of these benefits depends on the appraised value of the easement and the income tax situation of the landowner.

A conservation easement also can be sold by the landowner through a transaction commonly referred to as a Purchase of Development Rights (PDR) or Purchase of Agricultural Conservation Easement (PACE). Funds to purchase a conservation easement can be raised from private and government sources. North Carolina and the federal government have programs to purchase agricultural conservation easements. Funding through these programs is very competitive and will generally amount to a percentage of the easement's value. The tax benefits described above can be claimed for any of the easement's value above the purchase price.

Term Conservation Easements

Also called Agricultural Agreements, these agreements are similar to conservation easements but apply for a finite period of time agreed to by the landowner and conservation partner.

Transfer of Development Rights

A program set up by local units of government that utilizes conservation easements to preserve farmland by providing incentives to increase development density in a designated area. The program identifies the "sending area" where conservation is being encouraged and the "receiving area" where development is preferred. A landowner in the receiving area can

purchase a conservation easement on a property in the sending area and receive additional density allowances. In North Carolina, counties must receive authorization from the General Assembly to develop and implement a TDR program.

Farm Transition Planning

Making careful plans for the transfer of ownership of farm property and assets from the current owner to the next can be enough to preserve a farm for decades. Many options are available when planning an estate or land transfer. Farm owners can increase the likelihood of a successful transition that maintains the viability of the farm by obtaining professional assistance early in the process.

Right-to-Farm Law

North Carolina has a state right-to-farm law (N.C.G.S. §§ 106-700 to 701(2006)) that protects farm and forestry operations from being declared a nuisance as long as they have been in operation for at least one year and are operated properly and without negligence.

N.C. Agricultural Development and Farmland Preservation Trust Fund

N.C.G.S. § 106-744(c) established a trust fund to be administered by the Commissioner of Agriculture. The purpose of the trust fund is to provide monies to purchase agricultural conservation easements and to fund programs that promote the development and sustainability of farming, and the transition of existing farms to new farm families. Counties and nonprofit conservation organizations can apply for grants for these purposes.

Challenges, Opportunities and Trends: Survey and Interview Results

The methodology employed to access information, perceptions and attitudes related to agriculture and agribusiness in Chatham County consisted of written surveys and interviews with three target audiences—agriculture producers, agribusiness owners and non-farm residents of Chatham County. Surveys were distributed by the Chatham County Center of the North Carolina Cooperative Extension and SWCD. A total of 334 surveys were completed for the study.

In addition, Chatham County individuals from all three targeted groups were interviewed on an anonymous basis to better identify challenges and opportunities that exist in the county's agricultural segment. All descriptive statistics presented in this document were calculated using data obtained from these processes. Survey and interview information revealed pertinent information on the state of agriculture in Chatham County from the perspectives of farmers, agribusinesses, and non-farm residents as well as from data sources such as USDA and NCDA.

The results identify specific challenges and opportunities affecting the future of agriculture in the county.

Agricultural Producer Analysis

In the spring of 2023, farmers throughout Chatham County were invited to participate in a survey to update the FPP last completed in 2009. A total of 97 farmers completed a survey, either online or paper. The ages of survey respondents ranged from 24 to 92 years. The ages of Chatham farmers that responded were two farmers of less than 35 of age, 52 of ages between 35 and 64, and 37 of age 65 or older. Three did not respond to this question.

Ninety-six (98.97%) respondents answered the question that asked for a description of their operation. According to the survey, 48 (50%) operations were farm production only. Nineteen (19.79%) were primarily farm production with some timber production. Fourteen (14.58%) were timber

production only. Twelve (12.50%) were primarily timber production with some farm production. Three (3.13%) were engaged in wholesale greenhouse/nursery production.

Only 1 farmer of 80 respondents had obtained Good Agricultural Practices (GAP) certification. Fifty-four indicated that GAP certification was inapplicable because they did not grow produce.

Ninety-five (97.92%) respondents answered the question about how long they had been in business. Fifty-six (58.95%) of Chatham County farmers surveyed indicated that they had been in operation for more than 20 years. Thirteen (13.68%) farmers surveyed had been in operation for 10-20 years, and 26 (27.37%) respondents had been in operation 9 years or less (Figure 2).

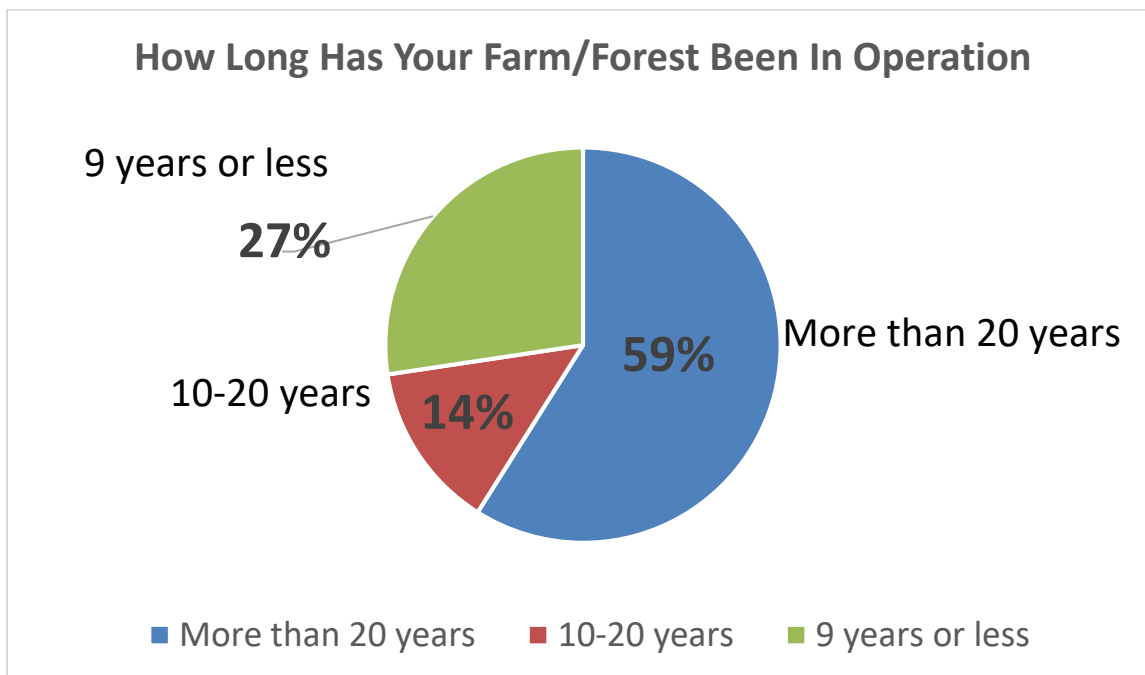


Figure 2. Source: Chatham Producer Survey 2023

Thirty-three (35.11%) of 94 respondents indicated that farming or forestry was their primary occupation. The remaining 61 (64.89%) said that farming/forestry was not their primary occupation. Seventy-two (75.79%) of 95 (97.94%) surveyed farmers responding indicated that farming/forestry provided 0-24% of their total income. Eleven (11.58%) indicated that farming/forestry provided 25-49% of their total income. Four (4.21%)

indicated that farming provided 50-74% of their total income. Eight (8.42) of the responding farmers indicated that their operations provided 75-100% of their total income.

Thirty-eight (40.43%) of 94 respondents employed hired labor. Three of these farm/forestry operations employed only part time or seasonal labor. Of the remaining thirty-five most employed only one to two employees. The total employment of these 35 farm/forestry operations was 85. The largest employer employed 12.

Of the 95 responding, 35 (36.84%) expanded their farm or forest operation in the last five years. Of the 62 respondents that provided a reason for not expanding, 34 were satisfied with their current size. Of those who wanted to expand but did not, the following reasons⁷ were given:

- Age of owner/operator 19 (30.65%)
- High cost of equipment 13 (20.97%)
- Low profit margin 13 (20.97%)
- High cost of additional labor 11 (17.74%)
- Lack of available land to be purchased 10 (16.13%)
- Lack of available labor 10 (16.13%)
- Personal or other reasons 8 (12.90%)
- Market volatility and excessive risk 5 (8.06%)
- Environmental or other governmental restrictions 5 (8.06%)
- Lack of available equipment 3 (4.84%)
- Lack of available land to rent 3 (4.84%)
- Land is available, but too close to development to farm or manage 3 (4.84%)
- Inability to obtain needed financing 2 (3.23%)
- Other 14 (22.58%)

Notably, almost a third of farmers or forest landowners surveyed stated that the age of the owner/operator prevented them from expanding. This indicates the importance of farm/forest transition planning and training for the large

⁷ Some respondents gave more than one reason.

population of farm/ forest landowners or operators that are age 65 or older. A majority of landowners currently have sufficient land to expand or diversify their farm/forest operations.

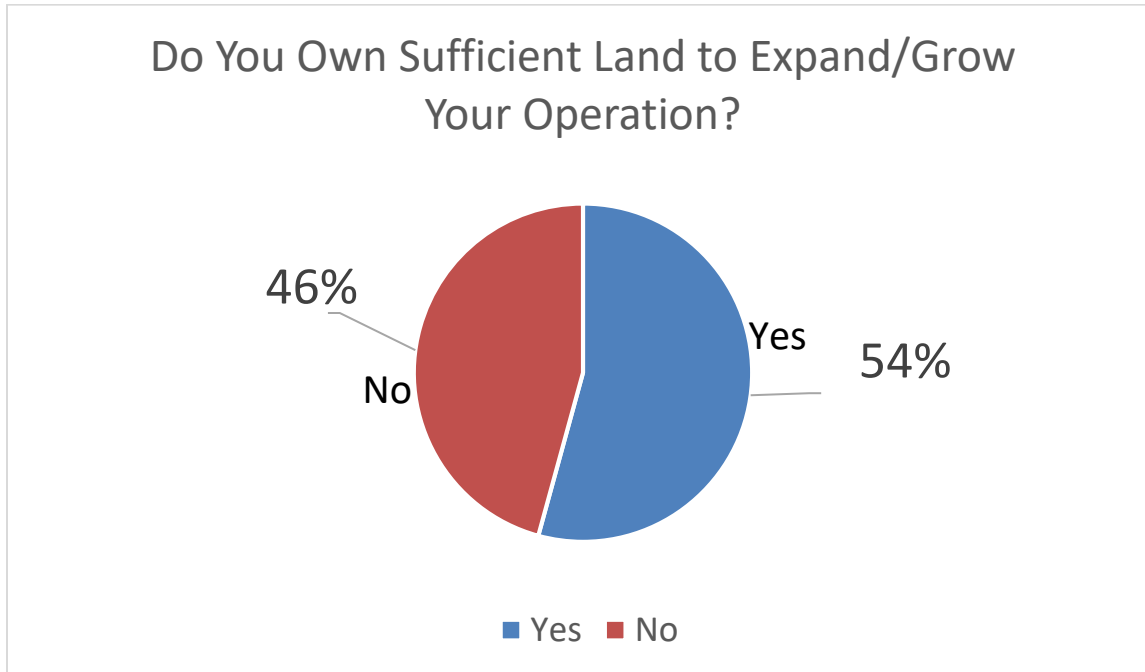


Figure 3. Source: Chatham Producer Survey 202

Fifty-one (54.26%) out of 94 respondents plan to continue to operate their farm or forest for more than 20 years. Twenty-one (22.34%) intend to continue in operation for the next 10 to 19 years and 20 (21.28%) plan to operate for the next 5 to 9 years. Only two respondents expect to stop operating in less than 5 years.

Ninety-four respondents answered the question about what they expected to be the most important influences on their operations over the next five years. These are:

- Production input costs 48 (51.06%)
- Residential Housing Expansion 47 (50.00%)
- Available labor 31 (32.98%)
- Commodity prices 27 (28.72%)
- Changing weather pressures (heat, cold, hurricanes, flooding, drought, etc.) 27 (28.72%)

- Competition for available land 26 (27.66%)
- Local demand for products 24 (25.53%)
- Affordable labor 22 (23.40%)
- Industrial Expansion 21 (22.34%)
- Water availability 16 (17.02%)

Additional information from the farming community indicated that upon retirement, over 60 percent of farmers expected to transfer the farm to family members for continued operation as a family farm. However, 65 percent do not have a farm transition plan. Twenty-seven percent have not shared transition plans with family members. This indicates a need to have training for some farm and forest owners on developing effective farm and forest land transition plans. Family farms and privately owned forests are the backbone of agriculture and forestry in North Carolina. Educating farmers and forest landowners on how to pass their farms on to another generation of farmers and forest stewards is essential to the future of agriculture and forestry.

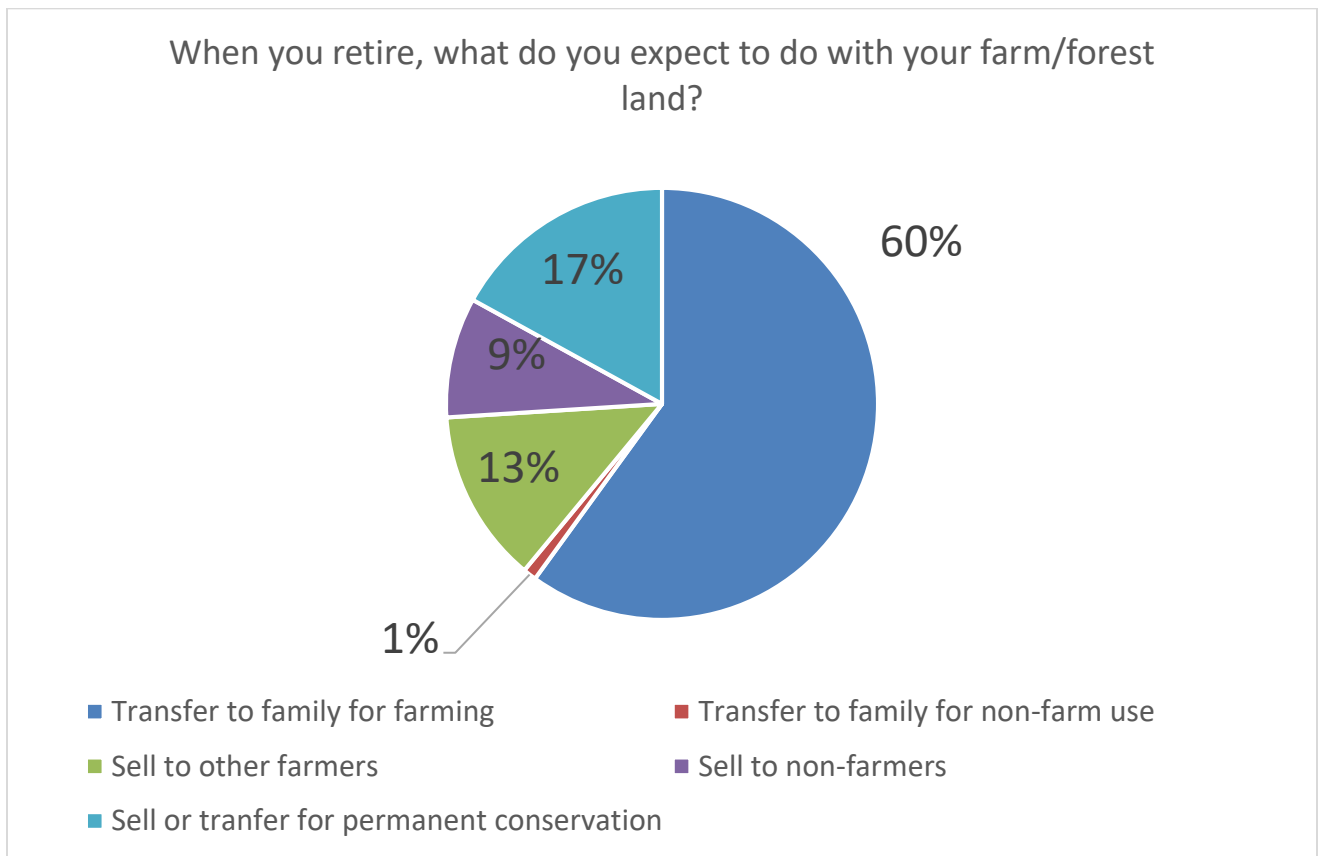


Figure 4. Source: Chatham Producer Survey 2023

Chatham County offers a deferred tax program beneficial to owners of agricultural, horticultural, and forestland. The program, for which the N.C. Department of Revenue (NCDOR) has oversight responsibility, is called the Present-Use Value (PUV) Program. The PUV Program offers qualifying owners of farmland, horticultural land forestland deferred taxation for the difference between the fair market value (FMV) of the property and its value in its present use in agriculture, horticulture, or forestry. With a timely filed application to the county tax office, a buyer, heir, or legatee that intends to keep the land in the qualifying use may avoid the rollback tax and continue the land in the PUV Program without interruption. The county tax administrator (assessor) has overall responsibility for administering the program in her county. The NCDOR Present-Use Valuation Program Guide⁴⁹ provides county tax administrators with guidance and safe harbor practices. State law gives county tax administrators significant discretion in administering the PUV Program; however, counties that choose to deviate from the PUV Program Guide may not have the support of the NCDOR if the county is taken to court by a taxpayer.

Sixty-four of 92 respondents (69%) answered that they were enrolled in the PUV Program. Eighteen (20%) are not enrolled in the PUV Program. Ten (11%) answered that they did not know whether their land was enrolled. (Figure 5)

The previous survey question (Question 16) revealed that 47.5% of responding forest landowners did not have a written forest management plan. If their forestland is enrolled in the PUV Program as forestland, the lack of a plan puts them out of compliance with the PUV Program requirements. If audited, they may be subject to rollback tax. For the two farmers that indicated in answer to question 11 that they intend to exit farming, forestry or horticulture it may make economic sense to be out of the program to avoid the rollback tax when (or if) they shift the land to a non-qualifying use. For the other respondents it makes economic sense, if they are qualified, to be in the PUV Program. Responses to Question 18 revealed that 39 of the 71 respondents that answered the question are enrolled as 'agriculture'.

One was enrolled as 'horticulture' and 20 were enrolled as 'forestry'. The eleven that answered "Other" were, based upon individual responses, as follows:

- Agriculture with included forest land 3
- Separately enrolled forest and agricultural tracts 4
- Agriculture 3
- None 1 (Respondent not skip questions as the others that were not enrolled did.)

In the follow up question (Question 19) 31 of 58 respondents indicated that their enrolled agricultural lands included forestland.

These results indicate a definite need to educate all landowners on the benefits of the PUV program. While an increased knowledge of this program could result in additional land enrolled in the program and, in turn, reduce tax revenues, the cost of community services for agricultural land versus residential land shows that the revenue outcome still provides a net gain to the county coffers.

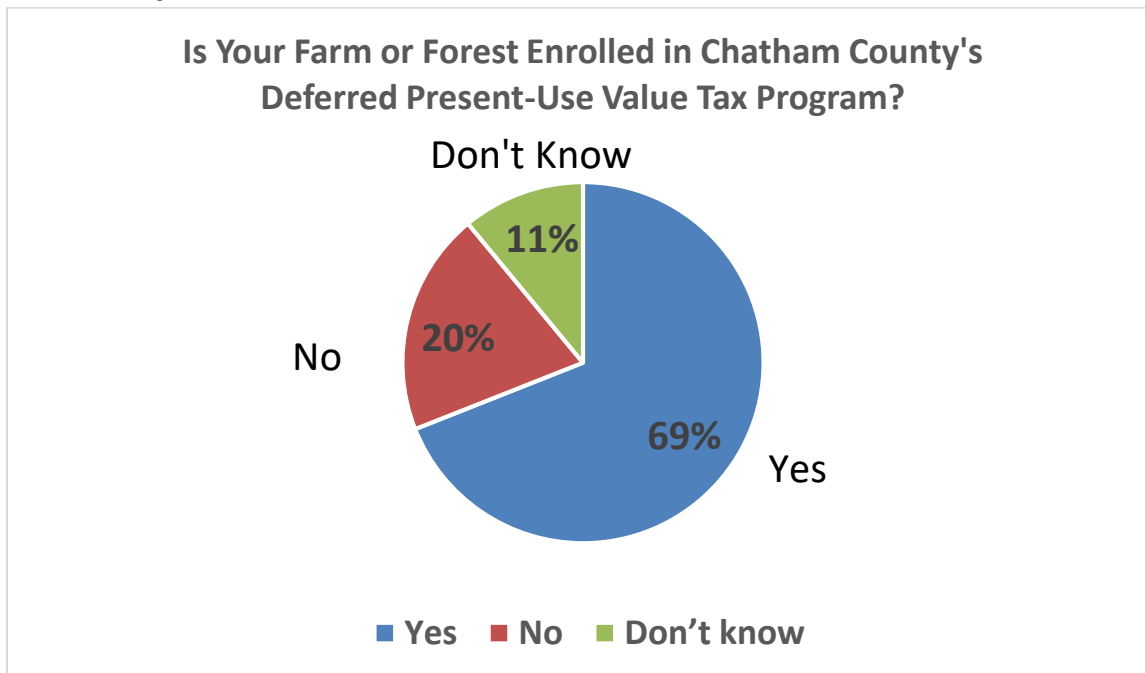


Figure 5. Source: Chatham Producer Survey 2023

Seventy out of 81 respondents did not lease their land. Five leased their land for farming, four leased for hunting and fishing, one for a cell tower, and four for other purposes. Nine out of 22 responding indicated that they had leased land from other landowners. Acreages leased ranged from 20 to over 800 acres.

When Chatham County farmers were asked to identify taxes that were impediments to their profitability, 85 respondents ranked the top three taxes as:

- local property tax on buildings and equipment 64 (75.29%)
- local property tax on land 59 (69.41%)
- estate tax 33 (38.82%)

Respondents were permitted to select the top three taxes that they felt imposed an unreasonable burden to agriculture/agribusiness. The tax on real estate can be reduced by enrolling eligible property in the PUV Program. The federal estate tax can be substantially reduced by estate planning if that plan is done sufficiently prior (preferably a decade or more) to the death of an owner. Both of these topics represent an opportunity for training that can mitigate the burden of those taxes on agriculture.

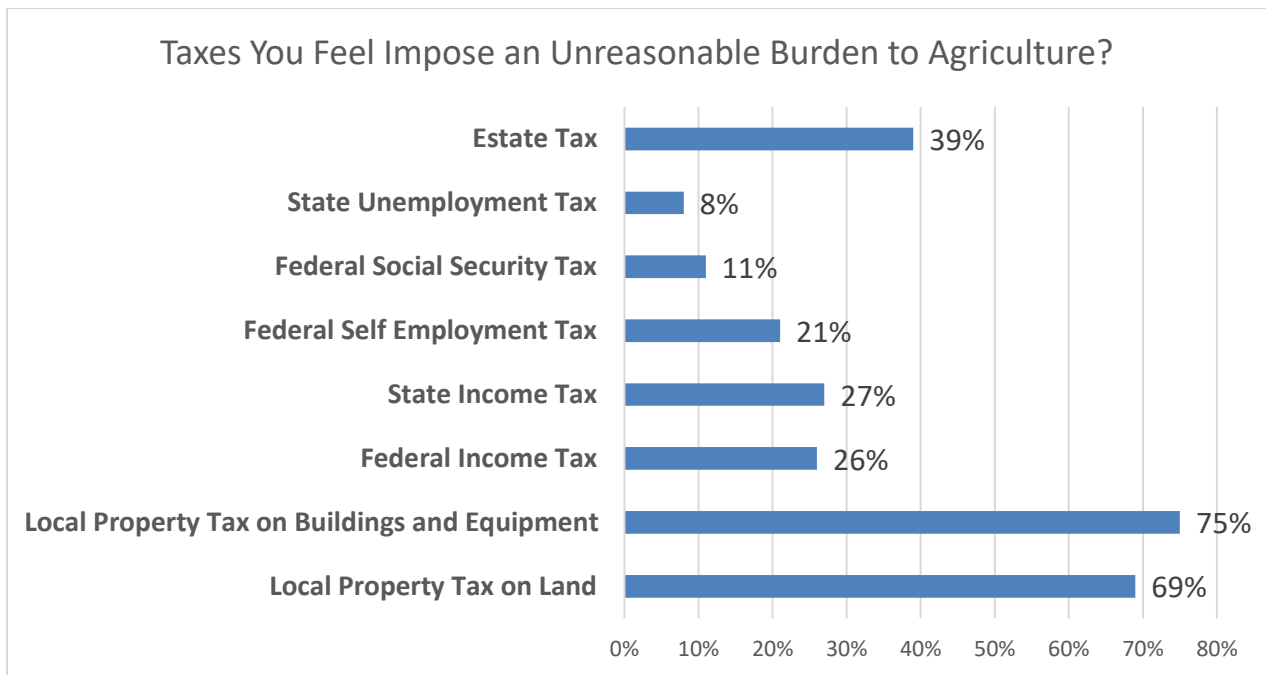


Table 2. Source: Chatham Producer Survey 2023

In 2020, the majority (97 percent) of forestland in Chatham County was privately owned. Forty-two (52.5%) of survey respondents had forest management plans. A forest management plan is a valuable tool for farmers and landowners to use this resource for greater sustainability and profitability. Management plans are required for forest landowners to enroll properties in the county's Present Use Value program (except as part of a tract predominately agriculture which is enrolled in the agriculture PUV Program). The survey data indicates the need for the development of an educational program to inform and train landowners on the benefits of a formal forest management plan.

Twenty-three (25%) of survey respondents have experienced problems with neighbors in regard to their farming operation. (Figure 6) Of those experiencing problems, the issues centered on:

- Boundary or trespassing conflicts 14 (56%)
- Chemical use or application issues 4 (16%)
- Dumping/littering issues 2 (8%)
- Manure application complaint 2 (8%)
- Noise complaint 2 (8%)

Remaining complaints from neighbors included drainage issues, the impact of farming on wildlife, and a new neighbor's complaint about working dogs. Overall, the level of complaints received by these respondents is lower than typical for many urbanizing counties.

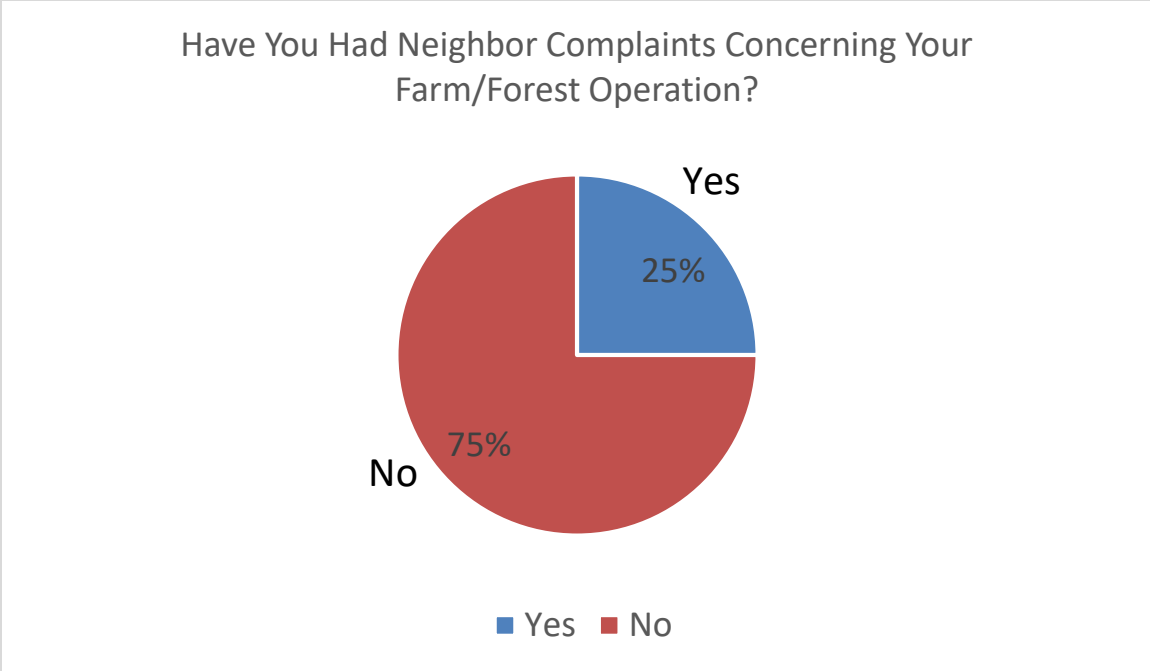


Figure 6. Source: Chatham Producer Survey 2023

Eighty-one respondents answered question 40. They expressed interest in training in the following areas:

- Timber management 29 (36%)
- Development of a forest management plan 23 (28%)
- Selecting consulting foresters 17 (21%)

Sixty-five respondents answered question 40. They expressed interest in training in the following areas:

- Taxes and other Regulations 40 (62%)
- Diversifying through Agritourism 27 (42%)
- Direct to consumer marketing of products 23 (35%)
- Marketing and Sales Promotions 21 (32%)
- Identifying and managing risks 19 (29%)
- Business website development 17 (26%)
- Forward pricing and hedging 15 (23%)
- Organizing Buyer/Seller Groups 13 (20%)
- Regional Product Branding 13 (20%)

There are multiple opportunities for training and education. This information should serve as a continuing guide for agencies and institutions involved in education within the county to develop plans for short-term and long-term training to serve the agricultural community. Forty-nine (58%) out of 84 respondents expressed an interest in training on making their farm more resilient to climate change. Sixty-four (78%) expressed an interest in estate planning and farm/forest transition. Thirty-two out of 83 respondents expressed an interest in training on federal and state contracts for their products.

Many of the Chatham County farmers surveyed were aware of farmland preservation tools that could help them in their efforts to maintain their family farms. There are a substantial number that could benefit from greater awareness. According to current records (October 24, 2023, there were 434 parcels, covering 16,854.22 acres, enrolled in the Voluntary Agricultural District program. Almost all agricultural, horticultural, and forest land outside of municipal boundaries is qualified for enrollment. Unlike the PUV Program, the Chatham County Voluntary Agricultural District Ordinance has no minimum acreage, minimum gross income, or restrictions on the type of legal entity owning the land.

Fifty-two of 91 respondents were aware of the Chatham County Voluntary Agricultural District (VAD) Program. Sixty-two of 93 respondents were aware of what conservation easements are. Six of 90 respondents had a total of 1,028 acres in conservation easements. Fifty-five of 81 respondents expressed interest in placing land in a conservation easement. Of the total of 105,995 acres in farms reported for Chatham County by the 2017 Census of Agriculture and the 263,062 of privately owned timber land in Chatham County (as reported for 2020 by NC State Extension), over 95% of Chatham County's farm and forestland is available for enrollment in the Chatham County VAD Program. That is an important educational opportunity.

Chatham County farmers, who were surveyed and interviewed, recognized the value of educating the non-farm public to the benefits of agriculture to the

county. Eighty-one (90%) of 90 respondents were in favor of a program to increase non-farm residents’ knowledge of the social and economic benefits of agriculture. They indicated that such a program would community support for farms and forests and improve farm and forestry operating conditions. Eighty-four (93%) of 90 respondents indicated support for local government funding of agricultural development. Eighty-eight (98%) of 90 respondents indicated support for local government funding of farmland preservation.

Chatham County farmers and operators who responded to the survey (94%) stated that there is a definite need for agricultural education in public schools, 4-H and youth development, community colleges and other colleges and universities. Table 3 shows the strong support for such programs, which illustrates the need to train youth in the importance of agriculture and the diverse agricultural career opportunities.

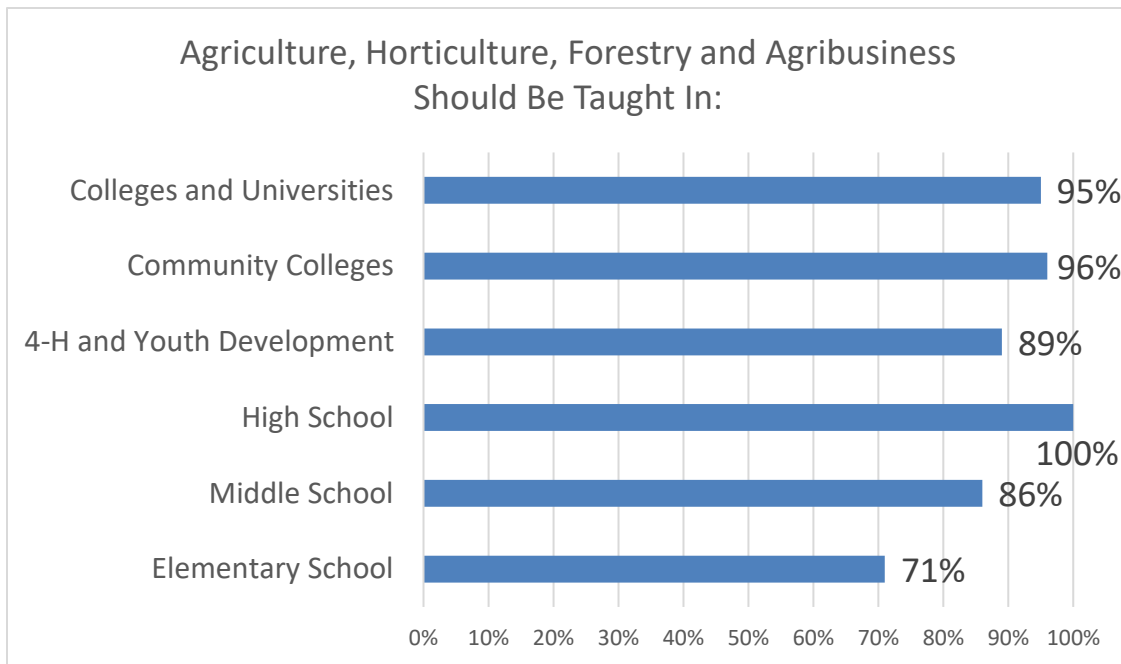


Table 3. Source: Chatham Producer Survey 2023

Surveyed farmers in Chatham County (98%) were in favor of government funds to support agriculture and agricultural economic development in the county.

Concerns about resources for farming and forestry (73 responded to the question) included:

- Soil health	40 (55%)
- Drought	39 (53%)
- Wildlife habitat	34 (47%)
- Livestock health	29 (40%)
- Supply chain issues	23 (32%)
- Crop productivity	22 (30%)
- Availability of potable water	22 (30%)
- Organic production capability	15 (21%)
- Carbon sequestration	13 (18%)
- Flood	12 (16%)

- Fifty-four (64%) of 85 respondents were willing to train an intern or young farmer to encourage the next generation to enter production agriculture.
- An additional 14 would consider this if a financial incentive were provided.
- Seventy-one (81%) of 88 respondents agreed that agritourism could provide opportunities for expansion and diversification for Chatham County agriculture and agribusiness.
- Eight-eight (98%) thought that it is important to promote agriculture and forestry as career opportunities.

Summary of interviews

Interviews were conducted with a cross-section of farmers to obtain their opinions on the issues, challenges and opportunities impacting agriculture in Chatham County. The following were stated as issues that impacted family farms as well as the continuity and profitability of these operations:

- **Residential and Industrial Development Pressure**
 - Development is out of control in the entire County.
 - No land use planning for development.
 - Losing valuable farmland to development.
 - Development is driving up land prices – prohibitive for farmers to expand.
 - County needs a land use coordinator to plan for housing, industry and farmland.
 - Land should be designated for farmland to prevent development.
 - Development is leading to the loss of history and historical places.

- **State of Agriculture**
 - More farmers markets and roadside stands in county providing revenue for smaller farmers.
 - Increase in smaller specialized farms (30-40acres) with high value crops.
 - Need for mentor programs between experienced and new farmers.

- **Infrastructure**
 - Not enough water to support farms, housing, and industrial expansion.
 - No county-wide water or sewer.
 - No centralized wastewater treatment.
 - Roads not adequate for increased traffic.
 - Park and ride options might help alleviate commuter traffic.
 - Increased traffic impedes moving farm equipment and animals on rural roads.

- Residential property taxes on houses not covering services required to service population growth (schools, law enforcement, roads, emergency services).
- **Farmland Preservation**
 - Voluntary Ag District and Enhanced Voluntary District programs are good but need more education on benefits of placing land in program.
 - The process for placing land in conservation easements is too complicated and time consuming.
 - More county funds need to be dedicated to conservation easement programs to incentivize landowners to enroll.
 - Younger generations of farm families are not interested in farming.
 - Farmers selling land for cash for retirement.
 - County needs to do more to preserve farmland.
- **Agricultural Education**
 - More county support is needed for youth and adult ag education.
 - 4-H and FFA good for youth ag education.
 - Cooperative Extension and Community College offer valuable education offerings.
 - Increase awareness of local farmers' markets.
 - Increase agricultural educational opportunities for county and community leaders.
 - Farmers are supportive of Cooperative Extension and the Chatham Soil & Water Conservation District
 - Farmers appreciate county investments in County Ag Facilities.
- **County Government**
 - County government is pro-ag in words but not deeds.
 - County government is pro-development at all costs.

Farmers were surveyed on the impact of the pandemic. This paragraph summarizes comments. Farmers markets were closed at a critical time for some. Some pick your operations continued but had to adapt by encouraging hand hygiene and selling by the basket rather than weight to avoid handling fruit. Overall, the survey indicated success in adapting and continuing to serve the community. The period illustrated the importance of having local sources of meat and produce to replace that which is brought in from out-of-state during the time that those sources of meat and poultry were unavailable. Some producers lost money and one respondent indicated a tragic fracture in their family over pandemic-related issues. Summarizing the responses, most of the respondents were able to adapt to serve the needs of the non-farm Chatham community. It is an important illustration of how local agriculture contributes to societal resilience in the face of disaster.

Agribusiness Survey Analysis

This is a summary of the survey provided to agribusinesses. Only 10 agribusinesses responded. The results should be interpreted accordingly.

Agribusinesses provide essential resources and services vital to the success and profitability of agriculture production services. Agribusinesses, like other businesses, provide jobs and employment, which stimulate the local economy. Ten agribusinesses responded, some operated multiple businesses. Agribusiness respondents included one logger/forester, one dairy services, six in financial/insurance, one agricultural/crop consultant, one ag processor, four agritourism/event venue operators, and two in landscape/horticultural services. Fifty percent of respondents' agribusinesses have been in operation more than 20 years.

Twenty percent of agribusinesses surveyed recognized that 0-24 percent of their business was generated from the farm/forestry community. Fifty percent of those surveyed reported that the farm community was responsible for 75 to 100 percent of their business. Though these agribusinesses offer agricultural services, many also provide services and products that meet the needs of non-farm residents and industries. In the last five years, 89 percent

of agribusinesses surveyed have increased the size of their operations. Fifty-six percent had added services in the last five years. Two-thirds reported an increase in agricultural inventories and sales over the past five years. Two-thirds of respondents expected to increase the size of their operation over the next five years. Two-thirds also expected to increase their number of employees over the next five years and add new products and services.

Lack of available labor and the age of the owner were the two reasons given by those businesses that did not expand. Fifty-six percent of respondents said that their businesses face labor issues. These issues included lack of qualified staff, lack of capital to hire staff, and inability to provide employees with benefits such as health insurance.

Two-thirds of respondents provide agricultural literacy outreach to their customers to help them better understand the impact of agriculture and food production. Seventy-eight percent felt that their businesses filled gaps and met needs during the pandemic. This included more outdoor events including a completely outdoor wedding. Space to pick their own food, camp, and gather in covered spaces was provided. SBA (the U.S. Small Business Administration) made loans, modified terms and conditions, and deferred payments when necessary.

Two-thirds of agribusinesses expect to add new products or services for non-farmers over the next five years. Eighty-eight percent of respondents will continue to seek ways to service non-farm residents, which will provide additional support for these agribusinesses.

Agribusiness owners also noted trends in agricultural production that could have impacts on their operations. One mentioned a shift to more container farming. Seventy-five percent of respondents expected to change their operations to adapt to these trends. One mentioned that they are aging and plan to mentor younger people to take over their business. One mentioned making more opportunities available for non-farmers to enjoy farms. One mentioned a merger with another business to expand services. Ninety percent

of respondents believe that agritourism offers opportunities for expansion and diversification for both agriculture and agribusiness in Chatham County.

One hundred percent of respondents believe that transition and estate planning issues are facing agribusinesses in Chatham County. Ninety percent of respondents said that agribusinesses need assistance with this process.

One hundred percent of respondents thought it important that agriculture and agribusiness be promoted as career opportunities. One hundred percent of respondents thought it important that neighbors and the community be provided with education about agriculture and agribusiness in Chatham County. One hundred percent of respondents thought it important to educate consumers about the importance of buying “local”. One hundred percent of respondents thought it important to provide agriculture education in the schools of Chatham County.

One hundred percent of respondents felt the success of their businesses depends on protection of agriculture and forestry from incompatible land uses. Other issues that were cited as important to the success of their business include training on new technologies being developed for agriculture and forestry, adequate financing to maintain or expand their businesses, and successful succession of their businesses those interested in continuing their businesses. One hundred percent of respondents support county government funding to support farm and forest land preservation.

In additional comments, one respondent expressed gratitude for the Chatham County Agriculture & Conference Center. One asked for support for farmers transitioning to organic agriculture. One asked for more incentives for environmental stewardship, including carbon farming. One expressed a desire for equity between north Chatham County and other parts of the County.

Agribusiness Interview Analysis

Interviews were conducted with a cross-section of agribusinesses and organizations to obtain their opinions on the issues, challenges and opportunities impacting agriculture and forestry in Chatham County. The following were stated as issues that impacted family farms, forestry operations and the businesses that serve them:

Residential and Industrial Development Pressure

- development is out of control.
- rampant urbanization, especially in the Pittsboro area.
- Chatham Park developers are stripping the area of vegetation.
- new housing developments are priced so Chatham residents can't afford housing.
- no affordable housing for workers in proposed industries.
- farmland being lost to development.
- agribusiness can't afford land for expansion because development leads to rising land costs.
- increased housing development puts residents closer to large agricultural operations increasing possibilities of nuisance complaints.

Education

- need more ag awareness education for county government leaders.
- supportive of increased youth education in agriculture, especially agricultural careers.
- research the incubator farm program in Orange County for possible implementation in Chatham.

Government

- county government supportive of ag in words but not actions.
- more county funds for conservation easement programs to preserve farmland.

- county is supportive of ag facilities and educational programs such as Cooperative Extension and Community College.

Non-Farm Resident Survey Analysis

Chatham County is home to people of diverse backgrounds. Some have lived in Chatham County their whole lives and others have chosen to relocate or retire in the county. The survey was open to all county residents. Eighty-nine (40%) of the respondents that participated in the survey have lived in Chatham 20 years or more. They were the largest single group of respondents. One hundred and seventy-three (77%) of 226 respondents had visited a farm or timber operation within the last year.

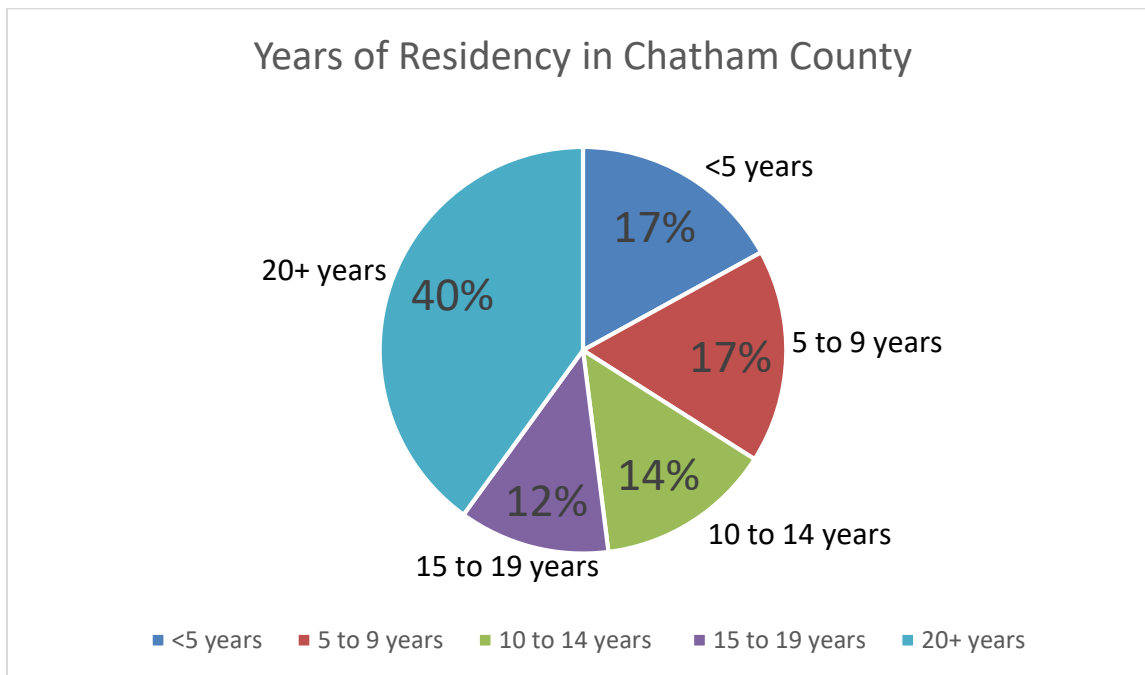


Figure 7: Time in residency in Chatham County

A majority (144 of 218 respondents or 66%) of Chatham County non-farm residents have never had a problem with a farm or forest operation. When problems have arisen, the respondents listed the following:

- Slow moving vehicles 19 (8.72%)
- Fencing/loose cattle 18 (8.26%)
- Timber harvest 17 (7.8%)

- Odors 16 (7.34%)
- Noise 15 (6.88%)
- Manure application 13 (5.96%)
- Drainage issues 11 (5.05%)
- Pesticide use 10 (4.59%)
- Smoke/dust 8 (3.67%)
- Boundary/trespass issues 6 (2.75%)
- Appearance of farm/forest from road or highway 5 (2.29%)
- Crop dusting 2 (0.92%)
- Sewage sludge application adjacent to property/creek 1 (0.5%)
- Irrigation 1 (0.5%)

Most (64%) non-farm residents did nothing to resolve their issue with a farmer or forester. Of those that did, the majority (about one-third) resolved the issue by speaking directly with the farmer or forester. About 10% made a report to authorities and about two percent engaged in mediation. About 58% of respondents gained a better understanding of why the landowner engaged in the practices that initially upset them. For a about 28% the issue was not resolved and another 25% did not understand why the landowner engaged in the practice that upset them. Less than two percent pursued litigation. It appears that there is an opportunity to engage in training to help the non-farm public better understand agricultural and forestry practices. The traffic issues referenced above (slow moving vehicles) may also be addressed by liaising with the NC Department of Transportation to determine whether roads can be improved to better accommodate both traffic and agricultural and forestry operations.

Most of the respondents (185 (81.5%) out of 227 respondents) have lived near a farm or forest operation at some point in their life. Almost 20% (43 respondents) had operated or owned a farm or forest operation at some point in their life. About 60% (135) currently live within ¼ mile of a farm or forest operation. Almost 95% of those that live near a farmer or landowner consider their neighbor a good neighbor.

When asked about the state of agriculture as a viable industry in Chatham County, about 49% percent of respondents felt that farming is holding its own and has some potential for future growth. Forty percent thought agriculture is an expanding industry with significant growth potential. Eleven percent said that agriculture has no potential for future growth in Chatham County.

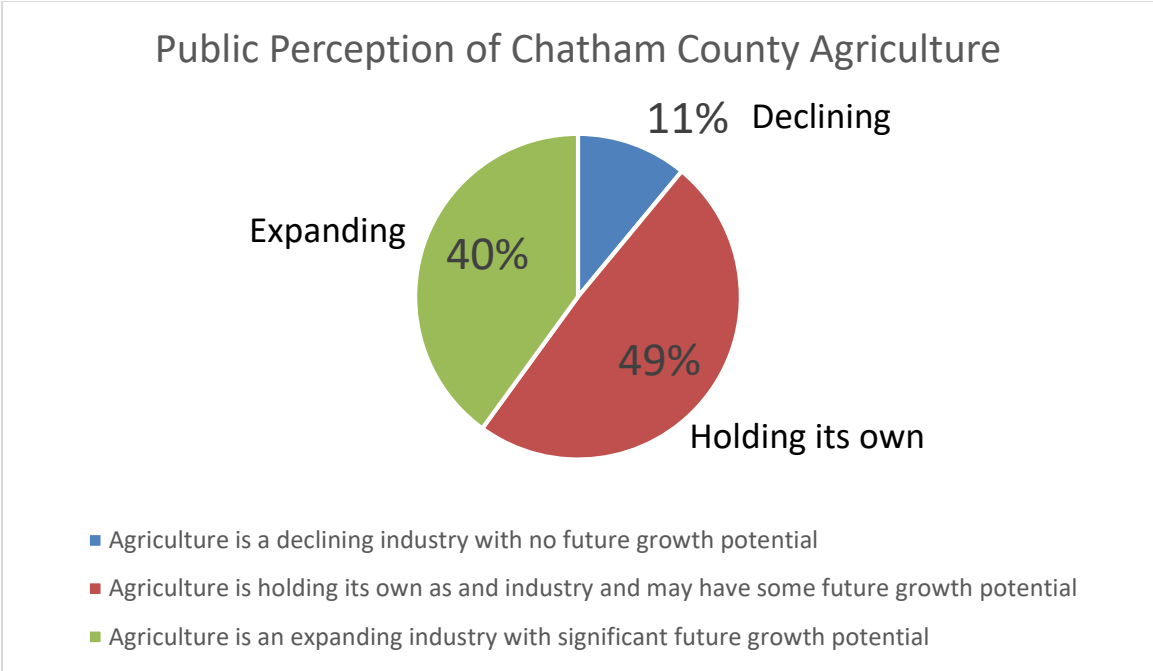


Figure 8. Source: Chatham Non-Farm Residents Survey 2023

Respondents were asked to estimate the size of Chatham County’s agricultural industry. One-third thought it was between \$100 million and \$300 million. The largest group, almost 48%, selected between \$10 million and \$99 million. Only 12% selected over \$300 million.

The 2017 Census of Agriculture lists the market value of products sold at \$171,150,000. When government payments and other farm-related income are added that total becomes \$174,546,000. Add to this, the 2020 contribution of the forest sector was estimated by NC State Extension for 2020 at \$297,000,000. The figure for agricultural is only the value at the farm gate. It does not account for value added by processing and other actors in the supply chain. There is no current estimate for that value for Chatham County.

It appears that most non-farm respondents underestimate the impact of the agricultural and forestry sectors on the economy of Chatham County.

One hundred percent of surveyed non-farm residents felt that Chatham County should take steps to help preserve farms and forests. Ninety-four percent of respondents reported that they support local farming by purchasing local produce from farmers markets, pick-your-own operations, and roadside stands. Ninety-one percent of non-farm residents say that they purchase plants from local greenhouses and nurseries. Additionally, 41 percent have participated in agritourism activities such as corn mazes, pumpkin patches and hayrides.

To assess the current relationship between non-farm residents and those engaged in farming and forestry, respondents were asked to indicate agreement or disagreement with a statement. The results for this part of the non-farm resident survey are listed below.

- 100% agreed farms and forests enhance scenic beauty and open space.
- 94% agreed farmers are good neighbors.
- 98% agreed that local farmers deliver high quality products.
- 86% agreed that farming has a positive impact on the environment.
- 85% agreed that tax breaks for farmers are important.
- 61% stated that farming and agribusiness are high technology businesses.
- 51% agreed that the prices of most farm food commodities are relatively low.
- 68% agreed farming presents a good career for enterprising people.
- 93 percent agreed that agriculture and forestry should be promoted as viable career opportunities.
- 90% agreed that farms and forests provide resiliency to the effects of changing climate conditions.
- 76% agreed that local farmers were able to fill food and supply gaps during the pandemic.

These statements clearly illustrate that non-farm residents surveyed have a positive image of agriculture in the County. Sixty-nine percent of respondents had attended Cooperative Extension or Chatham Soil & Water Conservation District trainings or programs. Sixty-seven percent attended Chatham County Ag Fest and fifty-five percent had gone on Chatham farm and industry tours. Over ninety-nine percent of respondents support farm and forest preservation efforts in Chatham County. Ninety-eight percent of respondents support using County funds for farm and forest preservation. Those surveys saw threats to agriculture and forestry in land availability and cost as well as the threat of climate change. Respondents saw opportunity farmland preservation programs and land use planning. Respondents provided numerous comments to the final open-ended question. These responses, in raw form, are in Appendix 4.

That 227 non-farm residents took the time to complete the survey is, of itself, evidence of the importance that that non-farm residents place on agriculture and forestry. Survey respondents overwhelmingly support the use of County funds to support farm and forest land preservation.

Non-farm resident interview analysis

Personal interviews with non-farm residents substantiated the finding in the surveys. The interviewees supported farmland preservation efforts in Chatham County and were in favor of using local government funding to ensure policies and programs that encourage the preservation of agriculture.

Residential and Industrial Expansion

- Loss of farmland.
- No infrastructure for water, sewer for housing developments.
- Losing rural nature of county—culture and environment.
- Increased traffic on rural roads.
- No farms = no food.
- Development means a greater consumer base for purchasing local foods.
- More development means more interest in the local foods movement.

Education

- More agricultural educational opportunities for youth and adults needed.
- Greater emphasis on farmers' market locations and hours
- Cooperative Extension and Community College offer valuable educational opportunities for non-farm residents.

Government

- County funds should be spent to preserve farmland.

Recommendations

The major result of the Chatham County Farmland Protection Plan is a set of recommendations with action steps that, when implemented, will bring about desired change. These steps are based on input from citizens affected by the plan as well as other agricultural sources. The following recommendations are extrapolated from data obtained through interviews and surveys of Chatham County farmers, agribusinesses and citizens and data from USDA, NCDA&CS, NC State Extension, and other sources. Timelines, responsible parties, and priority levels are suggested based upon the best information available as of the time of writing this Plan. Timelines for each recommendation are limited to what can reasonably be completed by the end of the 2024-25 fiscal year.

These recommendations reflect three basic tenets upon which this Plan is based:

1. Agriculture is an important component of Chatham County's economy.
2. Preserving farms and forests is in the public interest.
3. Farms and forests are sustainable natural resources.

For this plan to be effective, Chatham County citizens, leaders, agencies, and organizations must follow through with support and collaboration of these recommendations. This plan needs to be evaluated regularly to remain up-to-date and viable. A regular update will ensure that recommendations are being accomplished and new ones are added as needed. The following are recommendations that can be used to maintain and enhance agricultural, horticultural, and forest working lands in Chatham County.

1. Develop sustained and committed funding for farm and forest land preservation.

Working farm and forest lands, as demonstrated by the Cost of Community Services (COCS) study included in this plan, produces more tax revenue for the County than they require in County services. This is true even for land enrolled in the PUV Program that reduces the tax burden of working farm and forest land. Other benefits of working farm and forest lands produce many more benefits for the people of Chatham County than that demonstrated in the

COCS study. Local farms produce local food that provides resilience, as was evident during the pandemic, when normal supply chains are disrupted. Working farm and forest lands provide a variety of recreational benefits such as those associated with agritourism, hunting leases, and hiking and paddle trails encouraged by the General Assembly through legislation that reduces landowner tort liability. Working farm and forest lands reduce stormwater management costs by slowing stormwater runoff that results in cleaner, healthier surface waters and greater water infiltration to recharge aquifers. Working forest lands provide carbon sequestration and local reductions in ambient air temperatures.

Sustaining farm and forest lands is a long-term commitment that requires stable funding. Sustaining farming and forestry can work with industrial and residential development; however, doing so requires higher levels of funding than is the case for rural counties with less intense development pressure.

Action Steps:

- Develop funding priorities for the 2024-25 Fiscal Year.
- Develop funding priorities through FY 2029-30.
- Retain fair share of Article 46 tax revenue funding in future years.
- Develop a funding proposal for the Chatham Agricultural Preservation & Development Trust Fund
- Develop recommendation that rollback taxes from the PUV Program be devoted to farm and forest land preservation.
- Develop partnerships with Triangle Land Conservancy, Working Land Trust, and other entities that focus on holding working land conservation easements that can ensure adequate funding and expertise to do so.
- Identify outside grant and other funding sources available to the County and farm and forest landowners that can promote farm and forest land protection. Monitor the ongoing Farm bill process for new funding sources.
- Partner with land trusts that work in Chatham County to seek funding to support conservation easements for landowners that desire them.

Timeline:

- Immediately develop a draft funding proposal for the 2024-25 Fiscal Year and a funding proposal for the Chatham Agricultural Preservation & Development Trust Fund. Develop a proposal for retention of a fair share of Article 46 tax revenue funding in future years.
- Determine whether the federal Farm Bill extension has provided funds for working farm and forest land preservation. Do the same for any future federal Farm Bill.
- Continue planning for future fiscal years.
- Continue identification of outside funding sources.

Responsible Parties:

Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham Cooperative Extension, Agricultural Advisory Board

Priority level: High

2. Coordinate Farmland Protection Outreach, Education, and Policy Development.

One of the major accomplishments under the prior version of this plan has been the creation of a Farmland Preservation Coordinator. Creation of this position allows the Chatham Soil and Water Conservation District and Chatham County Cooperative Extension Service to develop robust farmland preservation initiatives including a permanent conservation easement program. Dr. Andrew Waters was hired to fill that position in September of 2023. The Chatham County Board of Commissioners has prioritized the protection and development of agriculture by establishing and funding the Chatham County Agriculture & Development Trust Fund. The Farmland Preservation Coordinator has responsibility for administering the fund and implementing other aspects of the Chatham FPP. Chatham County contracted with the University of Mount Olive to update the FPP.

The process by which updates to the plan is approved include review by the Chatham County Agricultural Advisory Board, endorsement by the Chatham

County Board of Commissioners and certification by the North Carolina Department of Agriculture and Consumer Services.

Though residents strongly support agriculture, horticulture, and forestry, added education and understanding is needed. County officials should be continually informed of agricultural, horticultural, and forestry information affecting Chatham County.

Utilization of the Cost of Community Services Study (COCS) to increase awareness and guide leadership as development of working lands are considered. Most communities fail to realize that saving land saves money. While residents demand expensive public services and infrastructure, privately-owned working lands enhance community character and quality of life without requiring significant public expenditures. Their fiscal contributions typically are overlooked, but like other commercial and industrial land uses, agricultural (farm, ranch and forest) lands generate surplus revenues that play an essential role in balancing community budgets. This, perhaps, is the most important lesson learned from Cost of Community Services (COCS) studies.

COCS studies provide a baseline of information to help local officials and citizens make informed land use decisions. They offer the benefit of hindsight to see the effect of development patterns to date. They also demonstrate the fiscal importance of privately owned land in farm and forest uses.

The threat expressed by all target audiences included housing and commercial development pressures. Development causing land prices to increase makes it hard for farmers to hold on to existing farmland. An additional threat is a lack of understanding among non-farm residents as to the importance of agriculture to the economy and culture of Chatham County. The Farmland Protection Plan and Chatham County Cost of Community Services Study are tools that can assist in reducing these threats if used as tools for preservation of working lands. These and other tools exist which can be of assistance to local leaders as planning and development occurs. Useful farm and forest land preservation tools will not eliminate the spread of development in Chatham County, but they can contribute to the awareness of the importance of farms

and forests to the economic stability of the county and a need for balanced development.

Action Steps:

- Present this FPP to the Board of Commissioners for endorsement and submit it to NCDA&CS for certification.
- Coordinate with NRCS and FSA to promote their funding and technical expertise to landowners.
- Integrate funding support for marketing and outreach in the County's in the annual budget process.
- Promote agriculture as a key feature of the County and component of the local economy and discourage conversion of areas with viable agricultural operations, for development. See Recommendation 02" (p. 95) in Chatham Co. Comprehensive Plan for guidance.
- Regularly review the plan for progress and addition/adjustment of any needed recommendations.
- Utilize all available media outlets to inform county leadership and the public about the plan's progress and success.
- Develop and implement an educational program for farmers and landowners regarding available farmland preservation tools, such as working land conservation easements, and incentives suited for Chatham County.
- Continue to educate landowners and farmers as to tax savings from the Present Use Value Program. Continue to encourage and assist with enrollment and ensure all eligible landowners enroll.
- Encourage local government, economic developers, land developers, planners, and the North Carolina Department of Transportation to work with the Chatham County Agricultural Advisory Board to engage with one another and share information about county projects that impact agricultural production.
- Develop programs on farm transition, estate planning and taxation.
- Develop an annual keeping the farm workshop that provides presentations and resources to landowners that can help them keep

their land in agriculture and forestry. Identify sponsors for the conference.

Timeline:

- Present the FPP to the Chatham County Board of Commissioners by March 2024.
- Continue coordination with NRCS and FSA.
- Continue planning a keeping the farm workshop with a goal of holding it in January or February 2025.
- Incorporate marketing and outreach funding in the County budget process.

Responsible Parties:

Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham Cooperative Extension, Agricultural Advisory Board, NRCS, FSA, RAFI, and Chatham County Farm Bureau

Priority level: High

3. Strengthen the Chatham County Voluntary Agricultural District Program; update farmland preservation ordinances; adopt an Enhanced VAD Program; and encourage the use of permanent working land conservation easements

The Voluntary Agricultural District (VAD) Program is a vital first step in protecting agriculture in a rapidly growing area, but it is no substitute for a viable agricultural industry. If strengthened, however, the VAD Program has the potential to be a powerful focal point of education for the real estate community, the public, and local elected officials about the benefits and needs of agriculture, horticulture, and forestry in their communities.

Progress has been made since the adoption of the 2009 plan. In 2019 all current VAD participants were asked to reapply to update administrative record keeping. There are 16,854.22 acres in 434 parcels that are subject to a VAD Program conservation agreement. The 434 parcels comprise 163 unique

applications. It is likely that several parcels are under the ownership of one individual or entity. There is currently no means of tracking owners or operators. A more robust IT solution than the Excel spreadsheet currently used could provide significant benefits. Those benefits could include alerting heirs and purchasers of land in the VAD Program that, if that land is also in the PUV Program, there is a need to timely file an application to continue in both the PUV and VAD Programs.

There are many horror stories across the state of heirs or buyers that did not timely file a PUV Program application. That oversight may cause the land to be lost to other uses in order to pay the tax bill. Most attorneys have no training in tax so it cannot be expected that either closing attorneys or probate attorneys would alert their clients to the need to do this.

The 2009 plan recommended that the Chatham County Commissioners amend the VAD Program ordinance to create an Enhanced Voluntary Agricultural District (EVAD) Program. That was not done likely because the benefits of the EVAD Program are limited. That decision should be revisited. While the number of landowners likely to use an EVAD Program is low, it may be helpful in preventing development of tracts of land crucial to Chatham County agriculture or forestry. It sometimes takes several years to obtain the necessary funding for creation of a permanent conservation easement. The EVAD Program offers a ten-year term easement as an interim measure. It is also an interim measure that allows an owner to explore whether a permanent easement is something that they wish to do. The current farmland/VAD ordinance needs to be updated and expanded to include dedicated funding resources, guidelines for the Chatham Agricultural Preservation & Development Trust Fund, updates to the VAD program and addition of the EVAD component, and other elements of the FPP that need official approval through an ordinance update/adoption.

Permanent conservation easements may be held either by the County or private land trusts. The entity holding the easement will depend upon the resource being protected and the purposes of the easement. In addition to the resources needed for acquiring easements, funds are needed for monitoring

and enforcement of easement provisions. Funds for maintenance may also be required. An important example of maintenance costs are funds expended to control nonnative invasive species.

Private land trusts have an advantage over governments in that they are not subject to the annual budget cycle. Many private land trusts have impressive lists of donors that can be counted upon for donations to support their activities. On the other hand some resources being protected may dictate that the easements on protected property be held by governments. An example would be the well head area for a well that serves as a water supply for a county water system.

Action Steps:

- Update farmland preservation ordinances to include dedicated funding sources, and guidelines for the Chatham Agricultural Preservation & Development Trust Fund. Identify other updates to farmland preservation ordinances that are needed.
- Adopt the Enhanced Voluntary Agricultural District Program to expand options for landowners. This program improves the County's ranking for ADFP funding.
- If available, allow the sale of water to agricultural properties at commercial rates.
- Integrate VAD Program properties into policy and educational tours and discuss value of programs to farmers and County.
- Discuss municipal adoption of VAD Programs by municipalities (It is only needed where there is farm or forest land within municipal boundaries).
- Update the IT functionality of the VAD and Farmland Preservation Program to compile and parse information about VAD participants in a more concise and convenient manner, improve the application process, and coordinate with information from the PUV Program.
- Partner with the North Carolina Bar Association to provide training for attorneys on farmland preservation issues including the VAD and PUV Programs.

Timeline:

- Update farmland preservation ordinances to include dedicated funding sources, guidelines for the Chatham Agricultural Preservation & Development Trust Fund and Enhanced Voluntary Agricultural District Program for presentation to the Chatham County Board of County Commissioners in January 2025.

Responsible Parties:

Chatham County Board of Commissioners, Farmland Preservation Coordinator, Agricultural Advisory Board, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension, and Chatham County Tax Office (PUV Implementation Specialist), UNC School of Government.

Priority level: High

4. Develop a Strategic Farmland Map

This objective from the 2009 plan was accomplished. Copies of the maps are included in this plan. Nonetheless, strategic mapping is a dynamic process that must be constantly updated and revised. This is of critical importance because NCDOT is required by Federal law to attempt to avoid conversion of prime farmland any time Federal funds are being used. Most road projects use Federal money. Highway development projects may extend for as much as 20 years. It is important that NCDOT know where prime farmland that must be avoided is located.

Action Steps:

- Update maps on a continuous basis.

Timeline: Ongoing.

Responsible Parties:

Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County GIS team, the Planning Department, and national and statewide, and local conservation nonprofits.

Priority level: Medium

5. Build Support for a Farmland Protection Program and Agribusiness Development

As the surveys conducted demonstrated, the demand for farm and forest land preservation programming is high in Chatham County, among all three demographics surveyed. There is little need to build public support. Industrial and residential development rapidly converting farm and forests to other uses has done that. What is needed is to focus on some specific objectives.

It is difficult to preserve farm and forest lands if those lands are not financially viable. The profitability of agriculture and forestry cannot be separated from farm and forest land protection. Chatham County is in a unique position to lead the region in agribusiness input-output infrastructure development, given the strength of its upstream and downstream industries. Based on current market conditions, such as workforce composition, industrial development patterns, and access to primary interstate systems, the county is well situated to develop value-added and distribution related agribusiness industry clusters. Such development is already evident in Siler City and along the U.S. 421 corridor.

Action Steps:

- Fill vacancies on Agricultural Advisory Board.
- Identify target areas for conservation where existing support is greatest.
- Build support for conservation easement programs through training and developing funding within the Chatham County Agriculture & Development Trust Fund. Develop a policy that allows determination of when the Trust Fund should hold easements. Included in this policy should be a determination of how perpetual funding for monitoring, and maintaining the easement will be provided.
- Develop a targeted marketing plan focusing on strategic advantages of Chatham County.
 - Integrate bioenergy and alternative energy projects within the plan. These projects can enhance income for farmers and foresters.
 - Encourage attraction of agricultural technology companies.

- Study the feasibility of developing specialty markets (see recommendation 11), e.g., a regional facility for processing industrial hemp into building materials, e.g., structural walls. Developing a processing facility will enhance income opportunities for farmers that wish to grow hemp.

Timeline: Fill vacancies on AAB by December 2024.

Responsible Parties:

Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension

Priority level: High

6. Review Subdivision Regulations and Zoning to Ensure, Where Possible that the Needs of Agriculture and Forestry Are Met

Agriculture and forestry fall within the agricultural exemption to county zoning. Agricultural and forest land are, nonetheless, covered by county zoning for any activity on that land that does not fall within the exemption. The exemption has been interpreted very broadly by the courts to not include a profit motive (unlike the PUV and VAD Programs). The nonagricultural and non-forest uses allowed on such land is a major factor in its desirability for conversion to uses other than agriculture and forestry.

Some of this is being done as part of the Unified Development Ordinance process: <https://www.recodechathamnc.org/> This coordination is useful to avoid land uses that are incompatible with existing agricultural, and forest uses.

Action Steps:

- Seek to explicitly include farmer, forestry, and agribusiness representation on planning related boards and commissions, such as the Environmental Review Advisory Committee, to ensure representation of their interests during planning processes and subdivision code updates.

- Provide for regular communication between Planning and agricultural and forestry communities through formal and informal channels, e.g., a contact list for addressing questions.
- Add a dedicated liaison from the Planning Board to the Agricultural Advisory Board.

Timeline:

- Adding a dedicated liaison from the Planning Board is an immediate priority.
- Ongoing for other action items..

Responsible Parties:

Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension, Chatham County Planning Board and staff, Chatham County Policy Director (See <https://www.chathamcountync.gov/government/departments-programs-and-services/cmo/cmo-staff-responsibilities-contacts?locale=en> for responsibilities.)

Priority level: Medium

7. Explore Means to Ensure that Agriculture Has Long-Term Access to Water Supplies

This issue has been addressed by the Planning Board Well Subcommittee.⁵⁰ The Well Subcommittee’s recommendations are as follows:

- “1. That the County partner with the USGS to fund a study to determine the sustainable level of groundwater use in different areas of the county. (We have had a preliminary meeting with officials from the local USGS office and they should have a specific proposal ready for consideration late in the summer.)
2. That the county utilize the upcoming UDO process to explore the feasibility of creating Conservation/Agricultural subdivisions and/or Agricultural Zoning Districts as recommended by the Comprehensive

Plan to ensure that future residential development does not conflict with continued agricultural production.⁵¹

The County Attorney questioned the legality of requiring subdivisions above a certain size to connect to a public water supply (either publicly or privately owned).

“The County Attorney informed the subcommittee that several legal principles cause him to question the legality of requiring subdivisions with more than a specified number of lots to connect to a public water supply (publicly or privately owned) system.

- Property Rights: People have the right to use their groundwater.
- Even if a property owner is connected to County Water, they can still drill a well for irrigation purposes.
- Due process concerns: regulations should not be unreasonable, arbitrary, or capricious. Laws should be substantially related to the valid object sought to be obtained.⁵²

Historically private lawsuits by one well owner against a neighboring well owner, for either monetary or injunctive relief, have either failed or had only limited success.

While the County likely cannot regulate subdivisions based upon water source, it may limit groundwater demand indirectly by increasing the required lot size. The tradeoff in protecting groundwater resources in this indirect manner is that it increases the amount of agricultural and forest land converted to residential uses.

Action Steps:

- Liaise with the Planning Board on this issue, recognizing that the Board’s authority to address the issue is limited.
- Continue to assist farmers with critical needs, e.g., green house, and poultry and cattle producers, to develop water storage such as farm ponds and rain capture.
 - Identify grant funds that may defray farmer costs.

- Utility Policy 5 (page 141 of the Comprehensive Plan) is incorporated into this Plan.
 - Support agricultural operations with utility policies.
 - Strategy 5.1
Limit utility extensions or upgrades in key agricultural areas (Agricultural Areas on the Future Land Use Plan and concentrations of agricultural areas shown on the strategic farmland map).
 - Strategy 5.2
Discourage community well systems in Agricultural Areas (SUP requirement).
 - Strategy 5.3
Improve understanding of groundwater usage and availability in Agricultural Areas.
 - Create an accurate, spatial inventory of permitted wells.
 - Improve permitting process
- AGR Policy 4 (page 96 of the Comprehensive Plan) is incorporated into this Plan as follows:
 - Ensure that agriculture has long-term access to water supplies.
 - Strategy 4.1
Improve understanding of groundwater usage and availability in Agricultural Areas.
 - Strategy 4.3
Establish utility policies that reduce potential conflicts over groundwater.

Discourage community wells in strategic agricultural areas.

Establish policies for extending utilities into strategic agricultural areas.

Policies could include:

Allow utility extensions (water and sewer) for serving Villages and Crossroads communities, denoted on the Future Land Use Map

Timeline: Identify critical water needs on farms and funding sources to make water supplies more resilient by December 2025.

Responsible Parties: Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Environmental Health

Priority level: High

8. Advocate for Farm- and Forestry-Friendly State Agricultural Policies

Since the adoption of the 2009 plan, there has been a resurgence of interest, especially among young people in agriculture. This is reflected in the growth in the number of students in agricultural majors at both the University of Mount Olive and North Carolina State University. Keeping policy makers, agricultural industry leaders, and the public informed and educated goes a long way toward developing better relations and maintaining awareness. In addition, the agricultural industry has common needs in workforce development, farm management, finance, and other issues that can be met through public training resources. Programs and policies of the State or federal government can be amended only if law makers and the appropriate agencies are aware of the needs. Staff cannot advocate or lobby for state level policies.

Action Steps:

- Liaise North Carolina Department of Transportation on policies related to rural road design to allow for greater shoulder depth and a requirement for tractor turn-offs to enhance traffic flow and traffic safety.

- Liaise with the NC Department of Agriculture and Consumer Services on Chatham County agricultural and forestry issues, including water availability issues. The Director of the ADFP Trust Fund is Evan Davis.
- Liaise with private sector farm organizations such as NC Farm Bureau, the Grange, and others.

Timeline: Prioritize action steps and develop timelines for each action step by May 2024.

Responsible Parties: Farmland Preservation Coordinator, Chatham County Policy Director, Chatham County Extension, and NC Farm Bureau, RAFI, and conservation nonprofits.

Priority level: Low

9. Seek Innovative Means to Integrate Farm and Forest Land Protection into the Jordan Lake Rulemaking Process

The N.C. Department of Environmental Quality is seeking stakeholder input in 2024 for the process of readoption of the Jordan Rules that govern activities with the potential to degrade water quality in the lake.⁵³ The Rules require all major sources of nutrients to reduce their loading (primarily for nitrogen and phosphorous) to the three arms of Jordan Lake. Nutrient sources addressed by the rules include agriculture, fertilizer application, wastewater discharges, and storm water runoff from both new development and existing developed lands. Local governments will be responsible for managing the implementation of the rules and will have threshold dates for achieving results.

Action Steps:

- Explore the availability of easement funding from agencies charged with protecting water quality in Jordan Lake.
- Improve cost share support for whole farm and nutrient planning within the watershed boundary.
- Explore the possibility of funding for permanent conservation easement funding in the Lake Jordan watershed.

Timeline: **URGENT**

The Jordan Lake Nutrient Strategy stakeholder process has already begun. This is from the NCDEQ website:

- November 2, 2023: Joint JLOW/DWR Autumn meeting - JLOW annual meeting, DWR present on 2023 watershed model results and current rule implementation.
- February 2024: New Year Reintroduction meeting - Re-introduce watershed model results, reorient stakeholders to Jordan background and rules, present preliminary high-level concepts, conduct workshop.⁵⁴

Responsible Parties: Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Watershed Protection, and local conservation groups

Priority level: High

10. Enhance Business Development Programs and More Fully Incorporate the Interests of the Agricultural and Forestry Industries

Agriculture and forestry are an important part of economic development. It is important to include forestry and agriculture in economic development planning. Advances in technology mean that there are new, growing companies that are serving the needs of agriculture. These companies are an important part of the economic impact of agriculture beyond the farm gate. Both NC State University and NC A & T State University have extensive contacts with these companies and can be seen as potential partners.

Action Steps:

- Coordinate with the Chatham County Economic Development Board to encourage consideration of agriculture and forestry in any economic development work plan or strategic plan.
- Develop an inventory of critical infrastructure that supports Chatham County agriculture and forestry. These include slaughter facilities, livestock markets, farm suppliers and implement dealers, and mills that handle forest products.

- Develop a feedback mechanism to incorporate agribusiness and forestry needs in county development programming through periodic agribusiness surveys conducted in cooperation with other associations and agencies.
- Encourage companies focusing on technology-based solutions to locate in Chatham County.
- Improve broadband access for farms. The Chatham Digital Inclusion Plan (in draft as of this writing) addresses farms and farmers as an underserved population. The 2017 Census of Agriculture confirms this in reporting only 79% of Chatham County farmers have internet access. Internet needs of modern farming are becoming increasingly demanding in terms of bandwidth and reliability. It would be helpful for business development planning to recognize that broadband is increasingly critical to the needs of modern farming. Those needs include supporting precision agriculture, remote monitoring of livestock and poultry, direct farm-to-consumer marketing (now possible as a global business) and trading agricultural futures and options.
- Develop implementation steps for each strategy under Recommendation 02 of the 2017 Chatham County Comprehensive Plan (page 95). [“Promote agriculture as a key feature of the County and component of the local economy and discourage conversion of areas with viable agricultural operations for development.”]

Timeline: Implementation steps under Recommendation 02 of the 2017 Chatham County Comprehensive Plan should be developed in preliminary form to help guide the budget process under Recommendation 1 of this Plan.

Responsible Parties: Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension, Chatham County Agribusiness Council, Chatham Economic Development Corporation, Small Business Center at Central Carolina Community College, Siler Area Chamber of Commerce, and the Agricultural Advisory Board

Priority level: High

11. Develop an Integrated Marketing System that Expands Opportunity to Direct Market and Wholesale Level Trade

Chatham County Cooperative Extension has developed a farmers' market web page that current provides information about four farmers' markets in the County.⁵⁵ Chatham County Cooperative Extension Master Food Volunteer (EMFV) program.⁵⁶ The EMFV program will allow Family & Consumer Science (FCS) agents to train volunteers to support their food and nutrition programming and promote local food, healthy food. These programs serve to both provide access to local foods and educate the public about the benefits of eating healthy food. The use of volunteers serves as a multiplier for the efforts of County staff. Chatham County Cooperative Extension provides gardening training that allows residents to grow some of their own food as well as engage in a healthy activity.

The Conservation Trust for North Carolina, with grant support from the Triangle Community Foundation, developed a regional farmland preservation and agricultural development strategy that includes Chatham County. See <https://ctnc.org/triangle-farms-for-food-strategy-action-plan/>

The State Farmers Market⁵⁷ in Raleigh provides a wholesale market facility that can handle truckload lots. That facility is a regional facility that serves Chatham farmers that wish to sell wholesale.

Action Steps:

- Develop funding proposals for the Tobacco Trust Fund, Golden leaf, SARE, developers, and other sources of economic development funding.
- Assess needs for additional marketing services for farmers.
- Develop a stronger working relationship between public health agencies and agriculture to educate those working in the health sector about local foods that can be part of a healthy diet.
- Work with schools to support nutritional training in schools.
- Support and expand 4-H programs that provide information about a healthy diet and the availability of local foods.
- Develop a shared food processing facility modeled on the Piedmont Food Processing Center.⁵⁸ This and other shared kitchens across North

Carolina provide a fully licensed and inspected shared facility in which value-added producers can produce product that can be sold at retail, including in grocery stores. This provides a marketing opportunity for producers that cannot yet afford their own facilities.

Timeline: Develop funding proposals and prioritize action items by December 2025.

Responsible Parties: Farmland Preservation Coordinator

Priority level: Medium

12. Create an Alternative Energy Development Program

Farm wastes, such as poultry litter, can be digested for production of biogas for on-farm use. Likewise roof top solar panels can reduce the need for purchased electricity. Chatham County has developed a greenhouse gas inventory that can help guide reduction efforts. See <https://www.chathamcountync.gov/home/showpublisheddocument/61632/637986556607930000>

Action Steps:

- Assess the needs of farmers for programs to assist with on farm alternative energy production and use and funding sources to support this.
- Provide farmers with information about clean energy funding opportunities under the Farm Bill extension and any future Farm Bill.
- Coordinate with action items under Recommendation 17.

Timeline:

- Develop funding proposals for programs under the Farm Bill extension and future Farm Bills as soon as possible.

Responsible Parties: Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension

Priority level: High

13. Create an Outreach and Public Relations Program

Chatham County Cooperative Extension and the Chatham Soil & Water District already conduct a great deal of programming for the nonfarm public. The positive impact of that was reflected in comments on the nonfarm survey.

Action Steps:

- Continue and expand support 4-H after school and other programming.
- Continue and expand support for FFA programs in Chatham County schools, including private and charter schools.
- Support programs for the public that introduce the public to local agriculture. The Farm to Fork⁵⁹ program is an example. Farm tours are another example of a popular activity.

Timeline: Ongoing.

Responsible Parties:

Chatham County Board of Commissioners, Farmland Preservation Coordinator, Chatham County Cooperative Extension, Chatham County Board of Education, Chatham County Schools

Priority level: High

14. Expand Education and Training Programs

Those that wish to become farmers need training. There are several programs that currently assist such people in Chatham County. Here is a list of existing programs:

- NC Farm School⁶⁰ provides comprehensive training for beginning and prospective farmers.
- Center for Environmental Farming Systems⁶¹ provides two apprenticeship programs. The Sustainable Vegetable Production Apprenticeship (SVP) connects experienced vegetable farmers with aspiring vegetable growers and future farmers for hands-on training and learning opportunities in and out of the fields of North Carolina. Boots on the Ground: NC Veteran Farmer Apprenticeship aims to increase the pool of trained agricultural workers for management and

entrepreneurial positions at farming operations in North Carolina. It is designed to serve the needs of military veterans.

- Central Carolina Community College⁶² offers a sustainable agriculture degree and a certificate. It provides two other certificates, one in sustainable livestock systems and one in sustainable vegetable production.
- Armed to Farm⁶³ serves military veterans with both classroom and hands-on learning about farming. It is currently partnering with Appalachian State University's Frontline to Farm⁶⁴ program and the National Center for Appropriate Technology (NCAT)⁶⁵.

Action Steps:

- Assess the need for additional training for all three audiences surveyed.
- Develop a marketing and branding strategy for farm and forest land preservation.
- Incorporate Recommendation 01 - Increase education, outreach and training (from page 94 of the Comprehensive Plan) as follows:
 - AGR Policy 1 – Support agriculture through increased education, outreach and training.

Strategy 1.1

Assist operators of existing farms that are contributing to the economy to remain in operation even when faced with pressures to develop the land for other uses.

- Encourage participation in Voluntary Agricultural District (VAD) program.
- Raise awareness of the benefits of participating in VADs.
- Partner with land trusts to provide technical assistance to those who demonstrate interest in establishing agricultural conservation easements.
- Strategy 1.2
Require the disclosure of the presence of VADs and/or other working lands to potential homebuyers and other investors.
- Strategy 1.3
Through educational programs (and partnering with

Cooperative Extension), continue to raise awareness of and appreciation for agriculture in the County, especially: (1) the value to the community (economy, environment, health with access to fresh nutritious foods, etc.) and (2) the diversity and compatibility of many types with various types of development, including residential neighborhoods.

- Agri-tourism
 - Health and nutrition programs
 - Local food access programs
 - Expanded course offerings
 - Support volunteer opportunities related to community gardens and agriculture
 - Partner with Chatham County Schools to create schoolyard gardens.
 - Continue / increase support for agricultural related training programs in high schools
 - Facilitate partnerships between the agricultural community and Central Carolina Community College to offer a degree and/or certification programs.
- Strategy 1.4
Increase capacity of the Chatham County Cooperative Extension Office.
 - Strategy 1.5
Initiate a program to connect farmers to available lands for lease.

Timeline: Ongoing.

Responsible Parties: Farmland Preservation Coordinator, Chatham Soil and Water Conservation District, Chatham County Cooperative Extension, Central Carolina Community College

Priority level: Medium

15. Develop a Farmer Recruitment Program

There was interest expressed in the producer survey about mentoring beginning farmers. A mentorship/apprentice type arrangement is a way to transfer the farm to a younger person so that the current owner can retire. It is also often the only way that a young person without land can become a farmer. NC State Extension offers information on farm transition through its Farm Succession and Transfer web page.⁶⁶ NC Farmlink⁶⁷ provides resources for farmers seeking land, and for farmers and landowners in need of a farm succession or stewarding plan.

Action Steps:

- Assess the need for additional Chatham County specific programming to support farmer recruitment.
- Partner with national and local agency that lease land to those lease land to farmers.

Timeline: Complete assessment by June 2024.

Responsible Parties:

Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension

Priority level: Medium

16. Support Regional Agricultural Leadership Development

FFA and 4-H provide excellent programming in Chatham County. FFA operates as chapters in Chatham County Schools and 4-H is a Chatham County Cooperative Extension program that provides programming after school, through summer camps, and in other venues.

Action Steps:

- Continue to support FFA programs in Chatham County schools.
- Continue to support Chatham County 4-H programs.

Timeline: Ongoing.

Responsible Parties: Chatham County Board of Commissioners, Chatham County Board of Education, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension

Priority level: High

17. Support the Resiliency Initiative of the 2017 Chatham County Comprehensive Plan (as amended in 2020).

This Plan should link to the Resiliency initiative of the Comprehensive Plan (page 111). Goal 01 from the Comprehensive Plan is: Become more resilient by mitigating, responding and adapting to emerging threats. Objective 01 under Goal 01 is: Improve emergency response and limit risk associated with natural and man-made disasters (drought, floods, energy costs and availability, etc.). This Comprehensive Plan objective is strongly supported by this FPP.

Keeping land as working farms and forests is key to promoting community resilience. Well managed farms and pastures store carbon in the soil as humus. Additional carbon storage can be obtained by using biochar in crop production. Biochar increases crop yields, provides for less waste of nutrients by keeping them in the soil rather than losing them through runoff to surface waters or infiltration into groundwater, and ensures that carbon thus sequestered remains in the soil for centuries.

Working forests, sustainably managed, sequester carbon in both the soil and standing timber. Well-managed forests reduce the speed with which runoff moves off the land which reduces flooding in large rain events. Forests also reduce total runoff by increasing infiltration of precipitation into the ground where it can recharge aquifers. Forests have the additional advantage of locally reducing surface air temperatures compared with hard surfaces.

Optimizing forest harvest intervals is important for increasing resilience. Current sales contracting methods for timber sales may result in both suboptimal economic and resilience in timber harvest intervals. Timber sales arrangements may require the buyer of timber to harvest by a date certain

which may not be optimal. In addition, the lack of mills that can handle large pine logs may result in sales of timber at shorter than optimal intervals.

Local food production adds resilience to food supply chains. This was seen during the pandemic when supply chains were disrupted. Local agriculture contributes to the overall resilience of the local economy by creating jobs.

Action Steps:

- Work NC State Extension and NC A&T Cooperative Extension, the NC Department of Agriculture & Consumer Services, and other State and Federal agencies to develop a toolbox of agricultural, horticultural, and forestry practices that can improve resilience.
- Develop funding proposals(s) for funding the resilience toolbox.
- Develop training for landowners to assist them with implementing practices that can improve resilience.
- Develop metrics to track support for the 2017 Chatham County Comprehensive Plan Resilience initiative.

Timeline: Development of a toolbox of practices to increase resilience by June 2025.

Responsible Parties: Chatham County Board of Commissioners, Climate Change Advisory Committee, Farmland Preservation Coordinator, Chatham Soil & Water Conservation District, Chatham County Cooperative Extension, Agriculture Advisory Board, Chatham County Policy Analyst, Chatham County Local Foods Council, and conservation nonprofits

Priority level: High

18. Equity and Inclusion

Various groups designated as “socially disadvantaged audiences” by the U.S. Department of Agriculture have historically been denied full participation in USDA and State program designed to assist farm and forest landowners. It is the goal of this program to encourage full and equal participation of these

groups in the Chatham County program to protect farm and forest land from development.

There are various groups and institutions that Chatham County can partner with. These include:

- Cooperative Extension⁸ at N.C. A&T University provides an Experiential Learning Program for K-14 educators, and the Small Farms program brings research-based information to small and limited-resource farmers and ranchers.
- Center for Environmental Farming Systems, Committee on Racial Equity in the Food System⁹ addresses food system disparities, such as food insecurity, chronic diet-related health conditions and lack of land access.
- The Land Loss Prevention Program¹⁰ is dedicated to the preservation of the family farm. It has done a great deal of work with families that need to resolve their property issues. It also played a critical role during the farm foreclosure crisis of the 1980s and 90s with helping financially distressed farm families retain their land.
- RAFI¹¹, based in Pittsboro, assists farmers that need help getting fair access to credit. It operates the Farmers of Color Network. It works with farmers on contract agriculture issues. Notably it played an important role in assisting farmers affected by the December 19, 2010, bankruptcy filing of Townsends Poultry, that resulted in the closing of slaughter plants in Siler City and Mocksville.

Action Steps:

- Incorporate the Chatham Comprehensive Plan recommendations on equity into this Plan. See pages 17, 71, 77- 79, and 150 of the Comprehensive Plan. The emphasis in the Comprehensive Plan on equity in health care is highly relevant to agriculture. Farmers and

⁸ N.C. A&T, College of Agriculture and Environmental Sciences Cooperative Extension. <https://www.ncat.edu/caes/cooperative-extension/index.php>

⁹ CEFS, Committee on Racial Equity in the Food System. <https://cefs.ncsu.edu/food-system-initiatives/food-system-committee-on-racial-equity/>

¹⁰ Land Loss Prevention Program. <https://www.landloss.org/index.html>

¹¹ RAFI. <https://www.rafiusa.org/>

farm workers frequently have less access to both health care and health insurance. Farmers and farm workers have higher accident rates and greater exposure to toxic chemicals than the population as a whole.

- Continue work on digital inclusion plan through Chatham County government.
- Continue outreach programs to include small and limited-resource farmers and ranchers in Chatham County's efforts to preserve farm and forest land.
- Develop a working relationship with NC DOT to ensure that small and limited-resource farmers and ranchers are not disproportionately impacted by highway development.
- Partner with organizations and institutions that are working with small and limited-resource farmers and ranchers.
- Work with USDA to develop an outreach plan to improve awareness of USDA socially disadvantaged audiences, beginning farmers, and veterans' programs.
- Work with the NC Agromedicine Institute to develop prevention, intervention, and education outreach to improve health access and care for farmers and farm workers. See <https://ncfarmlink.ces.ncsu.edu/2023/08/nc-agromedicine-institute/>
- Work with NC AgrAbility to assist Chatham County farmers and farm workers struggling mentally or physically to remain in, or Veterans entering into, production agriculture in Chatham County. See <https://www.ncagrability.org/>
- Develop an equity and inclusion plan that identifies key resources and measurable objectives.

Timeline: Work with the NC Agromedicine Institute and NC AgrAbility to provide programs for those engaged in agriculture and forestry by October 2024, with delivery of programs over the winter of 2024-25.

Responsible Parties: Chatham County Equity and Community Engagement officer, Farmland Preservation Coordinator, Chatham County Cooperative Extension, NRCS, FSA, and RAFI

Priority level: High

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Appendices

Appendix 1: Right-to-Farm laws and Related Statutes

Right-to-Farm laws and Related Statutes

N.C.G.S. § 7A-38.3. Prelitigation mediation of farm nuisance disputes.

(a) Definitions. - As used in this section:

(1) "Farm nuisance dispute" means a claim that the farming activity of a farm resident constitutes a nuisance.

(2) "Farm resident" means a person holding an interest in fee, under a real estate contract, or under a lease, in land used for farming activity when that person manages the operations on the land.

(3) "Farming activity" means the cultivation of farmland for the production of crops, fruits, vegetables, ornamental and flowering plants, and the utilization of farmland for the production of dairy, livestock, poultry, and all other forms of agricultural products having a domestic or foreign market.

(4) "Mediator" means a neutral person who acts to encourage and facilitate a resolution of a farm nuisance dispute.

(5) "Nuisance" means an action that is injurious to health, indecent, offensive to the senses, or an obstruction to the free use of property.

(6) "Party" means any person having a dispute with a farm resident.

(7) "Person" means a natural person, or any corporation, trust, or limited partnership as defined in G.S. 59-102.

(b) Voluntary Mediation. - The parties to a farm nuisance dispute may agree at any time to mediation of the dispute under the provisions of this section.

(c) Mandatory Mediation. - Prior to bringing a civil action involving a farm nuisance dispute, a farm resident or any other party shall initiate mediation pursuant to this section. If a farm resident or any other party brings an action involving a farm nuisance dispute, this action shall, upon the motion of any party prior to trial, be dismissed without prejudice by the court unless any one or more of the following apply:

(1) The dispute involves a claim that has been brought as a class action.

(2) The nonmoving party has satisfied the requirements of this section and such is indicated in a mediator's certification issued under subsection (g) of this section.

(3) The court finds that a mediator improperly failed to issue a certification indicating that the nonmoving party satisfied the requirements of this section.

(4) The court finds good cause for a failure to attempt mediation. Good cause includes, but is not limited to, a determination that the time delay required for mediation would likely result in irreparable harm or that injunctive relief is otherwise warranted.

(d) **Initiation of Mediation.** - Prelitigation mediation of a farm nuisance dispute shall be initiated by filing a request for mediation with the clerk of superior court in a county in which the action may be brought. The Administrative Office of the Courts shall prescribe a request for mediation form. The party filing the request for mediation also shall mail a copy of the request by certified mail, return receipt requested, to each party to the dispute. The clerk shall provide each party with a list of mediators certified by the Dispute Resolution Commission. If the parties agree in writing to the selection of a mediator from that list, the clerk shall appoint that mediator selected by the parties. If the parties do not agree on the selection of a mediator, the party filing the request for mediation shall bring the matter to the attention of the clerk, and a mediator shall be appointed by the senior resident superior court judge. The clerk shall notify the mediator and the parties of the appointment of the mediator.

(e) **Mediation Procedure.** - Except as otherwise expressly provided in this section, mediation under this section shall be conducted in accordance with the provisions for mediated settlement of civil cases in G.S. 7A-38.1 and G.S. 7A-38.2 and rules and standards adopted pursuant to those sections. The Supreme Court may adopt additional rules and standards to implement this section, including an exemption from the provisions of G.S. 7A-38.1 for cases in which mediation was attempted under this section.

(f) **Waiver of Mediation.** - The parties to the dispute may waive the mediation required by this section by informing the mediator of their waiver in writing. No costs shall be assessed to any party if all parties waive mediation prior to the occurrence of an initial mediation meeting.

(g) **Certification That Mediation Concluded.** - Immediately upon a waiver of mediation under subsection (f) of this section or upon the conclusion of mediation, the mediator shall prepare a certification stating the date on which the mediation was concluded and the general results of the mediation, including, as applicable, that the parties waived the mediation, that an agreement was reached, that mediation was attempted but an agreement was not reached, or that one or more parties, to be specified in the certification, failed or refused without good cause to attend one or more mediation meetings or otherwise participate in the mediation. The mediator shall file the original of the certification with the clerk and provide a copy to each party. Each party to the mediation has satisfied the requirements of this section upon the filing of the certification, except any party specified in the certification as having failed or refused to attend one or more mediation meetings or otherwise participate. The sanctions in G.S. 7A-38.1(g) do not apply to prelitigation mediation conducted under this section.

(h) Time Periods Tolled. - Any applicable statutes of limitations relating to a farm nuisance dispute shall be tolled upon the filing of a request for mediation under this section, until 30 days after the date on which the mediation is concluded as set forth in the mediator's certification, or if the mediator fails to set forth such date, until 30 days after the filing of the certification under subsection (g) of this section. The filing of a request for prelitigation mediation under subsection (d) of this section does not constitute the commencement or the bringing of an action involving a farm nuisance dispute. (1995, c. 500, s. 1; 2013-314, s. 2.)

Article 57. Nuisance Liability of Agricultural and Forestry Operations.

§ 106-700. Legislative determination and declaration of policy.

It is the declared policy of the State to conserve and protect and encourage the development and improvement of its agricultural land and forestland for the production of food, fiber, and other products. When other land uses extend into agricultural and forest areas, agricultural and forestry operations often become the subject of nuisance suits. As a result, agricultural and forestry operations are sometimes forced to cease. Many others are discouraged from making investments in farm and forest improvements. It is the purpose of this Article to reduce the loss to the State of its agricultural and forestry resources by limiting the circumstances under which an agricultural or forestry operation may be deemed to be a nuisance. (1979, c. 202, s. 1; 1991 (Reg. Sess., 1992), c. 892, s. 1.)

§ 106-701. Right to farm defense, nuisance actions.

(a) No nuisance action may be filed against an agricultural or forestry operation unless all of the following apply:

- (1) The plaintiff is a legal possessor of the real property affected by the conditions alleged to be a nuisance.
- (2) The real property affected by the conditions alleged to be a nuisance is located within one half-mile of the source of the activity or structure alleged to be a nuisance.
- (3) The action is filed within one year of the establishment of the agricultural or forestry operation or within one year of the operation undergoing a fundamental change.

(a1) For the purposes of subsection (a) of this section, a fundamental change to the operation does not include any of the following:

- (1) A change in ownership or size.
- (2) An interruption of farming for a period of no more than three years.
- (3) Participation in a government-sponsored agricultural program.
- (4) Employment of new technology.

(5) A change in the type of agricultural or forestry product produced.

(a2) Repealed by Session Laws 2018-113, s. 10(a), effective June 27, 2018.

(b) For the purposes of this Article, "agricultural operation" includes, without limitation, any facility for the production for commercial purposes of crops, livestock, poultry, livestock products, or poultry products.

(b1) For the purposes of this Article, "forestry operation" shall mean those activities involved in the growing, managing, and harvesting of trees.

(c) The provisions of subsection (a) shall not affect or defeat the right of any person, firm, or corporation to recover damages for any injuries or damages sustained by him on account of any pollution of, or change in condition of, the waters of any stream or on the account of any overflow of lands of any such person, firm, or corporation.

(d) Any and all ordinances of any unit of local government now in effect or hereafter adopted that would make the operation of any such agricultural or forestry operation or its appurtenances a nuisance or providing for abatement thereof as a nuisance in the circumstance set forth in this section are and shall be null and void. Provided, however, that the provisions shall not apply whenever a nuisance results from an agricultural or forestry operation located within the corporate limits of any city at the time of enactment hereof.

(e) This section shall not be construed to invalidate any contracts heretofore made but insofar as contracts are concerned, it is only applicable to contracts and agreements to be made in the future.

(f) In a nuisance action against an agricultural or forestry operation, the court shall award costs and expenses, including reasonable attorneys' fees, to:

(1) The agricultural or forestry operation when the court finds the operation was not a nuisance and the nuisance action was frivolous or malicious; or

(2) The plaintiff when the court finds the agricultural or forestry operation was a nuisance, and the operation asserted an affirmative defense in the nuisance action that was frivolous and malicious. (1979, c. 202, s. 1; 1991 (Reg. Sess., 1992), c. 892, s. 1; 2013-314, s. 1; 2018-113, s. 10(a).)

§ 106-702. Limitations on private nuisance actions against agricultural and forestry operations.

(a) The compensatory damages that may be awarded to a plaintiff for a private nuisance action where the alleged nuisance emanated from an agricultural or forestry operation shall be as follows:

(1) If the nuisance is a permanent nuisance, compensatory damages shall be measured by the reduction in the fair market value of the plaintiff's property caused by the nuisance, but not to exceed the fair market value of the property.

(2) If the nuisance is a temporary nuisance, compensatory damages shall be limited to the diminution of the fair rental value of the plaintiff's property caused by the nuisance.

(a1) A plaintiff may not recover punitive damages for a private nuisance action where the alleged nuisance emanated from an agricultural or forestry operation that has not been subject to a criminal conviction or a civil enforcement action taken by a State or federal environmental regulatory agency pursuant to a notice of violation for the conduct alleged to be the source of the nuisance within the three years prior to the first act on which the nuisance action is based.

(b) If any plaintiff or plaintiff's successor in interest brings a subsequent private nuisance action against any agricultural or forestry operation, the combined recovery from all such actions shall not exceed the fair market value of the property at issue. This limitation applies regardless of whether the subsequent action or actions were brought against a different defendant than the preceding action or actions.

(c) This Article applies to any private nuisance claim brought against any party based on that party's contractual or business relationship with an agricultural or forestry operation.

(d) This Article does not apply to any cause of action brought against an agricultural or forestry operation for negligence, trespass, personal injury, strict liability, or other cause of action for tort liability other than nuisance, nor does this Article prohibit or limit any request for injunctive relief that is otherwise available. (2017-11, s. 1; 2018-113, s. 10(b); 2018-142, s. 14.)



Appendix 2: Chatham County Agricultural Producer Survey

1. Introduction

Your input is needed to develop the 2023 Chatham County Farmland Preservation Plan. This plan will show the current state of agriculture and forestry, outline the challenges and opportunities for agriculture and forestry that exist, and develop recommendations to help maintain family farms and forests in Chatham County. The general public, agribusinesses, producers and landowners are targeted audiences for this survey. If the comprehensive strategies are to be meaningful, they need to be shaped by the input of the farm and forest producers. Your responses will help us to understand the needs of agriculture.

Chatham County Government is funding this project. The Lois G. Britt Agribusiness Center at the University of Mount Olive is directing the project.

Many challenges face agriculture such as a heightened awareness of the relationships between farm uses and other land uses. Farms and forests, when located adjacent to industries and communities, are considered "compatible use partners" and provide numerous benefits to the county and its residents. A comprehensive strategy will assist with the county's agriculture and land use policies and programs as well as develop these compatible partnerships. The Chatham County Farmland Preservation Plan will provide that strategy.

The intent of this plan is neither to limit nor restrict landowners' rights and uses. The plan will increase awareness of agricultural development opportunities and appreciation of agriculture and forestry. The preservation of agriculture is important to the well being of family farms as well as to the county and its economy. However, the ultimate decision of agricultural development rests in the hands of the landowners of farms and forests.

Please note that all information will be strictly confidential. Responses to the surveys will remain anonymous and are not identifiable. Your participation in this study is strictly voluntary.

Thank you for your interest and participation. If you have additional concerns or questions please contact TFeitshans@umo.edu.

2. AGRICULTURAL PRODUCER SURVEY

You should complete this survey ONLY IF you have income in excess of \$1000 from the production of crops, livestock, wholesale nursery, or aquaculture OR if you own timberland OR if you receive income from renting farm acreage.

All information is STRICTLY CONFIDENTIAL as referenced on introduction page.

Chatham County Agricultural Producer Survey

3. CURRENT STATE OF AGRICULTURE

Please tell us the type and the size of your farm/forest enterprise(s) in the following categories.

1. Please answer each item as appropriate for your operation:

How many total acres of land do you farm within Chatham County?

Of this total acreage farmed, how many acres do you rent from other landowners?

If you are a landowner who rents your land to farmers, how many acres do you rent to others ?

How many total acres of timberland do you own within Chatham County?

Of this total, how many acres are managed for timber production?

How many acres of farm and/or forestland do you manage outside of Chatham County?

2. Help us understand more about your operations. Please select the statement that best describes your operation:

- Timber production only
- Farm production only
- Primarily timber production with some farm production
- Primarily farm production with some timber production
- Wholesale Greenhouse/Nursery Production

3. How long has your farm/forest been in operation?

- 0 to 9 years
- 10 to 20 years
- 20+ years

4. What is your age?

5. Is farming/forestry your primary occupation?

- Yes
- No

6. What percentage of your household income comes from your farm or forest operation?

- 0-24%
- 25-49%
- 50-74%
- 75-100%

7. How many people do you employ to support your farming operation?

8. Have you, in the past 5 years, expanded your farm or forest operations?

- Yes
- No

9. If you did not expand, what were the primary reasons?

(Check ALL that apply)

- | | |
|---|--|
| <input type="checkbox"/> Satisfied with current size | <input type="checkbox"/> Lack of available land to be purchased |
| <input type="checkbox"/> Age of owner/operator | <input type="checkbox"/> Lack of available land to rent |
| <input type="checkbox"/> High cost of equipment | <input type="checkbox"/> Land is available, but too close to development to farm or manage |
| <input type="checkbox"/> Lack of available equipment | <input type="checkbox"/> Lack of available labor |
| <input type="checkbox"/> Inability to obtain needed financing | <input type="checkbox"/> High cost of additional labor |
| <input type="checkbox"/> Low profit margin | <input type="checkbox"/> Personal or others reasons |
| <input type="checkbox"/> Market volatility and excessive risk | <input type="checkbox"/> Environmental or other governmental restrictions |
| <input type="checkbox"/> Other (please specify) | |

10. Do you currently own sufficient property to expand or diversify your farm/forest operation?

- Yes
- No

11. How much longer do you plan to operate your farm/forest?

- Less than 5 years
- 5 to 9 years
- 10 to 19 years
- More than 20 years

12. Of the issues listed below which do you anticipate to most influence your operation in the next five years: (Check ALL that apply)

- | | |
|---|---|
| <input type="checkbox"/> Production input costs | <input type="checkbox"/> Residential Housing Expansion |
| <input type="checkbox"/> Marketing costs | <input type="checkbox"/> Industrial Expansion |
| <input type="checkbox"/> Regulatory costs | <input type="checkbox"/> Export demand for products |
| <input type="checkbox"/> Commodity prices | <input type="checkbox"/> Local demand for products |
| <input type="checkbox"/> Available labor | <input type="checkbox"/> Land rental rates |
| <input type="checkbox"/> Affordable labor | <input type="checkbox"/> Water availability |
| <input type="checkbox"/> Market competition | <input type="checkbox"/> Changing weather pressures (heat, cold, hurricanes, flooding, drought, etc.) |
| <input type="checkbox"/> Competition for available land | |
| <input type="checkbox"/> Other (please specify) | |

13. When you retire, what do you expect to do with your farm/forestland?

- Sell to other farmers
- Transfer to family for farming
- Sell to non-farmers
- Transfer to family for non-farm use
- Sell or transfer for permanent conservation

14. Do you currently have a farm transition plan/estate plan?

- Yes
- No

15. Have you shared your thoughts of farm transition with your family members?

- Yes
- No

16. If you have forestland, do you have a written forestry management plan to follow?

- Yes
- No

17. Is your farm or forest enrolled in Chatham County's deferred present use value tax program?

- Yes
- No
- Don't know

18. If enrolled, which of the following is your land enrolled as?

- Agriculture
- Horticulture
- Forestry
- Other (please specify)

19. If enrolled as agricultural land, is some of that land forestry?

- Yes
- No

20. If your operation is involved in the production of produce, have you obtained Good Agricultural Practices (GAP) certification for your farm to assure food safety?

- Yes
- No
- Do not grow produce

21. If you are a landowner, do you currently lease any of your property for:

(Check ALL that apply)

- Farming
- Cell Towers
- Solar Farm
- Mining/Quarry
- Hunting/Fishing
- Do Not Lease
- Other (please specify):

22. If you do lease land from other landowners, how many acres do you lease?

23. Have you had neighbor problems concerning your farming or forestry operation? See Question 22

- Yes
- No

24. If you answered yes to the previous question, what was the nature of the complaint?

(Check ALL that apply)

- | | |
|---|--|
| <input type="checkbox"/> Manure application complaint | <input type="checkbox"/> Noise complaint |
| <input type="checkbox"/> Boundary or trespassing conflict | <input type="checkbox"/> Slow-moving vehicle complaint |
| <input type="checkbox"/> Drainage issue | <input type="checkbox"/> Chemical use or application issues |
| <input type="checkbox"/> Dumping/littering issue | <input type="checkbox"/> Adverse environmental impact of farming |
| <input type="checkbox"/> Impact of farming on wildlife | <input type="checkbox"/> Odors |
| <input type="checkbox"/> Smoke or dust | |
| <input type="checkbox"/> Other (please specify) | |

25. Please answer each question presented below:

	Yes	No
Are you aware of the Chatham Voluntary Agricultural District (VAD) and the Chatham Enhanced Voluntary Agricultural District (EVAD) programs?	<input type="radio"/>	<input type="radio"/>
Do you have acreage enrolled in the VAD or EVAD Program?	<input type="radio"/>	<input type="radio"/>

26. Do you know what a Conservation Easement is?

- Yes
- No

27. Do you have any land in conservation easements?

- Yes
- No

28. If you have land in conservation easements, how many acres are enrolled?

29. Would you consider putting farm/forest land in a Conservation Easement Program?

- Yes
- No

30. How were you as a farmer able to fill any community/local/state/federal needs during the pandemic?

4. FUTURE OF AGRICULTURE

Please answer the following questions about the future of agriculture and opportunities for agriculture.

1. Do you think local government funding should support agricultural development?

Yes

No

2. Do you think local government funding should support farmland preservation?

Yes

No

3. Do you think educating non-farming citizens about the economic and social contributions of farming/forestry will increase community support for farms/forests and improve your operating conditions?

Yes

No

4. Of the taxes listed below, please select the top three that you feel impose an unreasonable burden to agriculture/agribusiness.

Local property tax on land

Local property tax on buildings and equipment

Federal income tax

State income tax

Federal self employment tax

Federal social security and Medicaid taxes for employees (payroll taxes)

State unemployment tax

Estate tax

Other (please specify)

5. Are you concerned about any of the following resource issues in your farming operation?
(Check all that apply)

- Availability of potable water
- Drought
- Flood
- Carbon sequestration
- Soil health
- Crop productivity
- Livestock health
- Organic production capability
- Wildlife habitat
- Supply chain issues
- Other (please specify)

6. Do you see agritourism as an expansion/diversification opportunity for agriculture and agribusiness in Chatham County?

- Yes
- No

7. Is it important to promote agriculture and forestry as career opportunities?

- Yes
- No

8. Agriculture, horticulture, forestry and agribusiness should be taught in:

(Check ALL that apply.)

- Elementary school
- Middle school
- High school
- 4-H Youth Development
- Community college
- Colleges and Universities

9. Would you consider training an intern/young farmer within your farming operation to encourage the next generation to enter production agriculture?

- Yes
- No
- Only if monetary incentives were provided.

Chatham County Agricultural Producer Survey

5. TRAINING AND BUSINESS DEVELOPMENT

Please answer the following questions about training and business development opportunities to maintain the viability of your farm or forested land.

1. Select which of these potential trainings you would attend: (Check ALL that apply)

- Timber management
- Development of a Forestry Management Plan
- Selecting Consulting Foresters
- None of the above

2. Would you attend training on business planning such as these: (Check ALL that apply)

- Direct to Consumer Marketing of Products
- Business Website Development
- Regional Product Branding
- Identifying and Managing Risk
- Diversifying through Agritourism
- Marketing and Sales Promotions
- Forward Pricing and Hedging
- Organizing Buyer/Seller Groups
- Taxes and other Regulations

Other (please specify)

3. Would you attend training on making your farm more resilient to the effects of climate change?

- Yes
- No

4. Would you attend training on Estate Planning and Farm/Forest Transition?

- Yes
 No

5. Would you attend training on how to apply for federal and state contracts for your products?

- Yes
 No

6. Both opportunities and threats exist for agriculture and agribusiness in Chatham County.

Please list two threats you perceive to agriculture/forestry/agribusiness in Chatham County.

Please list two opportunities that exist for agriculture/forestry/agribusiness in Chatham County.

7. Please add any additional comments you may have about agriculture and forestry in Chatham County.

Chatham County Agricultural Producer Survey

6. THANK YOU!

Your time and effort on this survey will help develop the 2023 Chatham County Farmland Preservation Plan. This plan will provide recommendations for both short and long-term strategies to support agriculture and forestry in Chatham County. Once the plan is written, it will be presented to the county commissioners for endorsement. Once it is endorsed, it will be sent to NC Department of Agriculture for certification. When the plan is certified, the county will receive priority status for funding from NC Department of Agriculture's Agricultural Development and Farmland Preservation Trust Fund.

If you have any questions or would like more details, please contact Ted Feitshans at TFeitshans@umo.edu

Supplemental questions for interviews

1. Have you experienced any transportation issues affecting agriculture or agribusiness as the result of urban or suburban growth, or other factors?

- Please describe.
- Did you consult with NC DOT or other state or local agencies concerning these issues?
- Were your issues successfully resolved? Please describe.
- If not, what would be an adequate resolution for you?

2. Do you sell at any farmers' markets?

- If so, please describe your involvement.
- Are the farmers' markets at which you sell seasonal or year-round?
- What additional support do farmers' markets in Chatham County need?
- What is the best about the markets where you sell?
- What can be improved?

3. What improvements would help you better and more profitably market your products?

4. Describe any educational program in which you participate or sponsor.

5. Describe activities that you support to provide food to those in need. If you make donations of any of your production, please describe in as much detail as you wish.

6. Is agritourism part of your farm enterprise? Please describe.



Appendix 3: Chatham County Agribusiness Survey

1. Introduction

Your input is needed to develop the 2023 Chatham County Farmland Preservation Plan. This plan, which is an update to the 2009 Chatham County Farmland Preservation Plan, will contain the current state of agriculture and forestry, outline the challenges and opportunities for agriculture and forestry that exist, and develop recommendations to help maintain family farms and forests in Chatham County. The general public, agribusinesses, producers and landowners are targeted audiences for this survey. Many of Chatham County's agribusinesses are individual, independent operations with unique interests, needs and concerns. If the Chatham County Farmland Preservation Plan is to be meaningful, it needs to be shaped by the input of agribusiness owners.

Chatham County is funding this project. The Lois G. Britt Agribusiness Center at the University of Mount Olive is directing the project.

Many challenges face agriculture such as a heightened awareness of the relationships between farm uses and other land uses. Farms and forests, when located adjacent to industries, military installations and communities, are considered "compatible use partners" and provide numerous benefits to the county and its residents. A comprehensive strategy will assist with the county's agriculture and land use policies and programs as well as develop these compatible partnerships. The Chatham County Farmland Preservation Plan will provide that strategy.

The intent of this plan is neither to limit nor restrict landowners' rights and uses. The plan will increase awareness of agricultural development opportunities and appreciation of agriculture and forestry. The preservation of agriculture is important to the well being of family farms as well as to the county and its economy. However, the ultimate decision of agricultural development rests in the hands of the landowners of farms and forests.

Please note that all information will be strictly confidential. Responses to the surveys will remain anonymous and are not identifiable.

Your participation in this study is strictly voluntary. Thank you for your interest and participation. If you have additional concerns or questions please contact TFeitshans@umo.edu.

2. AGRICULTURAL BUSINESS SURVEY

Please complete this survey ONLY if you own a business that is tied to agriculture,

aquaculture and/or forestry through services, trainings, products, manufacturing, processing, etc.

All information is STRICTLY CONFIDENTIAL as referenced on introduction page.

1. What type of agribusiness do you operate?

(Check ALL that apply)

- | | |
|---|---|
| <input type="checkbox"/> Feed dealer | <input type="checkbox"/> Veterinarian |
| <input type="checkbox"/> Equipment dealer | <input type="checkbox"/> Logger or forester |
| <input type="checkbox"/> Equipment repair | <input type="checkbox"/> Dairy |
| <input type="checkbox"/> Ag consultant | <input type="checkbox"/> Ag processor |
| <input type="checkbox"/> Farm supply store | <input type="checkbox"/> Landscape/horticulture |
| <input type="checkbox"/> Seed/fertilizer/lime/agri-chemical | <input type="checkbox"/> Financial/insurance |
| <input type="checkbox"/> Nursery/greenhouse | <input type="checkbox"/> Agri-Tourism/Event Venue |
| <input type="checkbox"/> Garden Center | <input type="checkbox"/> Winery |
| <input type="checkbox"/> Processor/distributor | |
| <input type="checkbox"/> Other (please specify) | |

2. How many people do you employ in Chatham County? (Please provide number of employees)

Full-time	<input type="text"/>
Part-time	<input type="text"/>

3. How long has this business been in operation?

- | | |
|---------------------------------|-----------------------------------|
| <input type="radio"/> 0-4 years | <input type="radio"/> 10-20 years |
| <input type="radio"/> 5-9 years | <input type="radio"/> 20+ years |

4. Approximately what percentage of your business comes from the farm/forest community?

- 0 to 24%
- 25 to 49%
- 50 to 74%
- 75 to 100%

3. OVERVIEW OF LAST FIVE YEARS

Please help us understand what has occurred in your business in the LAST five years.

1. Have you increased your operation size in the last five years?

- Yes
 No

2. Have you added service area to hold or expand your market share in the last five years?

- Yes
 No

3. Have you increased agricultural inventories and sales in the last five years?

- Yes
 No

4. If you have NOT expanded in the last 5 years what are the primary reasons?

(Check ALL that apply)

- | | |
|--|--|
| <input type="checkbox"/> Satisfied with current size | <input type="checkbox"/> Low profit margins |
| <input type="checkbox"/> Loss of market share | <input type="checkbox"/> Declining agricultural sales |
| <input type="checkbox"/> Lack of labor supply | <input type="checkbox"/> Lack of room to expand |
| <input type="checkbox"/> Age of owner | <input type="checkbox"/> Regulatory obstacles |
| <input type="checkbox"/> Lack of financial capital | <input type="checkbox"/> Receivables collection problems |
| <input type="checkbox"/> Other (please specify) | |

5. Do you provide agricultural literacy outreach training to your clientele/customers to help them better understand the impact of agriculture and food production?

- Yes
 No

6. Did your agribusiness fill any gaps/needs during the pandemic?

- Yes
 No

7. If you answered yes to question 6, please explain what gaps were filled and how.

Chatham Agricultural Business Survey

4. YOUR PLANS FOR THE NEXT 5 YEARS

Please help us understand what you foresee for your business in the NEXT five years.

1. Do you expect to increase your operation size in the next five years?

- Yes
 No

2. Do you expect to increase the number of employees at your place of business in the next five years?

- Yes
 No

3. Do you expect to add new product lines or services for farm/forestry operators in the next five years?

- Yes
 No

4. Do you expect to add new product lines or services for non farmers in the next five years?

- Yes
 No

Chatham Agricultural Business Survey

5. TRENDS IN AGRICULTURE

1. What agricultural trends have you observed in Chatham County?

(Check ALL that apply)

- | | |
|--|--|
| <input type="checkbox"/> A change to new types of farms | <input type="checkbox"/> More part-time farms |
| <input type="checkbox"/> More small farms | <input type="checkbox"/> More specialty and direct market operations |
| <input type="checkbox"/> Fewer small farms | <input type="checkbox"/> More diversification |
| <input type="checkbox"/> More large farms | <input type="checkbox"/> No significant changes |
| <input type="checkbox"/> Fewer large farms | <input type="checkbox"/> Container farming |
| <input type="checkbox"/> A shift to more sophisticated farm operations | |
| <input type="checkbox"/> Other (please specify) | |

2. Based on what you have observed, will you modify your business to adapt to these trends?

- Yes
 No

3. If yes, what modifications will you make?

Chatham Agricultural Business Survey

6. THE FUTURE OF AGRICULTURE

1. Is transition/estate planning an issue facing agribusinesses in Chatham County?

- Yes
 No

2. Do agribusiness owners need assistance with transition/estate planning?

- Yes
 No

3. Is it important that agriculture and agribusinesses be promoted as career opportunities?

- Yes
- No

4. Is it important to have neighbor and/or community education about the importance of agriculture and agribusiness in Chatham County?

- Yes
- No

5. Do you have labor issues at your business?

- Yes
- No

6. If you answered yes to the above question, what issues do you face? (Check all that apply)

- Lack of qualified staff
- Lack of training opportunities for staff
- Lack of capital to hire staff
- Unable to provide required benefits such as health insurance, employment taxes, etc.
- Other (please specify)

7. Is there a need for consumer education on the economic impact of buying "local" in Chatham County?

- Yes
- No

8. Is there a need for youth agriculture education to be taught in the schools of Chatham County?

- Yes
- No

9. Do you see agritourism as an expansion/diversification opportunity for agriculture/agribusiness in Chatham County?

- Yes
- No

10. For your business to succeed, what topics are most important to you?

(Check ALL that apply)

- Ability to receive adequate financing to maintain/expand business
- Succession/transition of the business to interested parties
- Training and education on new technologies that are being developed for agriculture/forestry
- Zoning or Regulated Land Use to prevent interference with agriculture and/or forestry
- Other (please specify)

11. Would you support county government funding of agricultural preservation?

- Yes
- No

12. Both opportunities and threats exist for agriculture and agribusiness in Chatham County.

Please list two threats to agriculture/forestry/agribusiness.

Please list two opportunities that exist for agriculture/forestry/agribusiness.

13. Please add any additional comments you may have about agriculture and forestry in Chatham County.

Chatham Agricultural Business Survey

7. THANK YOU!

Your time and effort on this survey will help develop the 2023 Chatham County Farmland Preservation. This plan will provide recommendations for both short and long-term strategies to support agriculture and forestry in Chatham County. Once the plan is written, it will be presented to the county commissioners for endorsement. Once it is endorsed, it will be sent to NC Department of Agriculture for certification. When the plan is certified, the county will receive priority status for funding from NC Department of Agriculture's Agricultural Development and Farmland Preservation Trust Fund.

If you have any questions or would like more details, please contact Ted Feitshans at TFeitshans@umo.edu.

Supplemental questions for interviews

1. Have you experienced any transportation issues affecting agriculture or agribusiness as the result of urban or suburban growth, or other factors?

- Please describe.

- Did you consult with NC DOT or other state or local agencies concerning these issues?

- Were your issues successfully resolved? Describe.

- If not, what would be an adequate resolution for you?

2. Do you work with any farmers' markets?

- If so, please describe your involvement.

- Are the farmers' markets that you work with seasonal or year-round?

- What additional support do farmers' markets in Chatham County need?

3. Describe any agricultural educational programs in which you participate or provide support.

4. Describe activities, e.g., marketing, publicity, that you support to promote agritourism.

5. Describe activities that you support to provide food to those in need. Is any of the food locally produced? Please describe.



Appendix 4: Chatham County Non-Farm Resident Survey

1. Introduction

Your help is needed to develop the 2023 Chatham County Farmland Preservation Plan. This plan, which is an update to the 2009 Chatham County Farmland Preservation Plan, will contain the current state of agriculture and forestry, outline the challenges and opportunities for agriculture and forestry that exist, and develop recommendations to help maintain family farms and forests in Chatham County. The general public, agribusinesses, producers and landowners are targeted audiences for this survey. Non-farm resident participation is essential to ensure that views on open space, values placed on farms and forests, and impacts of development are part of the plan.

The word "agriculture" in this survey refers to farms (row crops, livestock, fruits/vegetables, flowers/plants, aquaculture) and forests.

Chatham County Government is funding this project. The Lois G. Britt Agribusiness Center at the University of Mount Olive is directing the project.

Many challenges face agriculture such as a heightened awareness of the relationships between farm uses and other land uses. Farms and forests, when located adjacent to industries, military installations and communities, are considered "compatible use partners" and provide numerous benefits to the county and its residents. A comprehensive strategy will assist with the county's agriculture and land use policies and programs as well as develop these compatible partnerships. The Chatham County Farmland Preservation Plan will provide that strategy.

The intent of this plan is neither to limit nor restrict landowners' rights and uses. The plan will increase awareness of agricultural development opportunities and appreciation of agriculture and forestry. The preservation of agriculture is important to the well being of family farms as well as to the county and its economy. However, the ultimate decision of agricultural development rests in the hands of the landowners of farms and forests.

Please note that all information will be strictly confidential. Responses to the surveys will remain anonymous and are not identifiable. Your participation in this study is strictly voluntary.

Thank you for your interest and participation. If you have additional concerns or questions please contact TFeitshans@umo.edu.

Please DO NOT complete this survey if you are a farmer/timberland owner OR if you receive income from renting land for farming OR if you own a business primarily dependent on farm and timber customers. These individuals will be surveyed separately.

All information is STRICTLY CONFIDENTIAL as referenced in the introduction.

1. Please tell us, by town and/or community, where you live in Chatham County:

2. How long have you lived in Chatham County?

- <5 years 5 to 9 years 10 to 14 years 15 to 19 years 20+ years

3. Please answer each question below:

	Yes	No
Have you ever lived near a farm or timber operation?	<input type="radio"/>	<input type="radio"/>
Have you ever owned or operated a farm or timber operation?	<input type="radio"/>	<input type="radio"/>
Do you live near (within 1/4 mile) of a farm or timber operation?	<input type="radio"/>	<input type="radio"/>
If yes, is that farmer or land owner a good neighbor?	<input type="radio"/>	<input type="radio"/>

4. When was the last time that you visited a farm or timber operation?

- Within the last year More than 10 years ago
 Within last 2 to 9 years Never

5. Which statement best represents your view of Chatham County agriculture?

- Agriculture is a declining industry with no future growth potential
 Agriculture is holding its own as an industry and may have some future growth potential
 Agriculture is an expanding industry with significant future growth potential

6. Can you estimate the size of Chatham County's agricultural industry?

- Less than \$10 million \$100 million to \$300 million
 \$10 million to \$99 million Over \$300 million

7. Do you feel that Chatham County should take steps to help preserve farms and forests?

- Yes No Not sure

8. How do you support the agricultural economy of Chatham County? (Check ALL that apply)

- I buy local produce at Farmers Markets, Pick-Your-Own farms, roadside stands, etc.
- I would purchase local agricultural products if available
- I buy plants from local nurseries and greenhouses.
- I participate in agritourism activities such as corn mazes, pumpkin patches, hay rides, etc.
- I lease farm land to farmers
- I buy meat from local producers
- I lease farmland and forest land for hunting and fishing
- I don't support the agricultural economy in Chatham County
- Other (please specify)

9. Have you ever experienced problems with a farm or forest neighbor regarding any of the following? (Check ALL that apply)

- | | | |
|---|---|--|
| <input type="checkbox"/> No problem | <input type="checkbox"/> Slow-moving vehicles | <input type="checkbox"/> Boundary/trespass issues |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Drainage issues | <input type="checkbox"/> Fencing/loose cattle |
| <input type="checkbox"/> Odors | <input type="checkbox"/> Pesticide use | <input type="checkbox"/> Crop dusting |
| <input type="checkbox"/> Smoke/Dust | <input type="checkbox"/> Timber Harvest | <input type="checkbox"/> Appearance of farm/ forest from road or highway |
| <input type="checkbox"/> Manure application | <input type="checkbox"/> Irrigation | |
| <input type="checkbox"/> Other problems such as dogs, personal, etc. (please specify) | | |

10. If you had problems with a farm or forest neighbor, how did you resolve them?

- Called authorities
- Contacted the producer/landowner
- Mediation
- Nothing

11. When you dealt with the above issues, how did you feel about the resolution?

- I gained a better understanding of why the landowner/producer did the activities that upset me initially.
- The issue was not resolved
- Litigation was pursued
- I still do not understand why that activity is necessary

12. Please tell us whether you agree or disagree with the following statements: (PLEASE SELECT A RESPONSE FOR EACH ITEM PRESENTED).

	Agree	Disagree	Not Sure
Farms and forests enhance the scenic beauty and open space of Chatham County	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farmers are good neighbors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local farmers deliver generally high-quality products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farming and Forestry are positive for the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tax breaks for farmers are important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agriculture and farming are high-technology industries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The price of most farm food commodities is relatively low	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farming presents a good career for enterprising persons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agriculture and forestry should be promoted as viable career opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farms and Forests provide resiliency to the effects of changing climate conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local farmers were able to fill food and supply gaps during the pandemic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Have you attended the following? Please check all that apply

- Cooperative Extension or Soil and Water Conservation trainings or programs
- Chatham County Ag Fest
- Chatham Farm and Industry Tours

14. Would you support farm and forest preservation efforts in Chatham County?

- Yes
- No

15. Would you support the use of county government funds for farm and forest preservation?

- Yes
- No

16. Both opportunities and threats exist for agriculture and agribusiness in Chatham County.

What are two threats to agriculture/forestry/agribusiness that you see in Chatham County?

What are two opportunities that exist for increasing agriculture/forestry/agribusiness in Chatham County?

17. Please add any additional comments you may have about agriculture and forestry in Chatham County.

Chatham County Non-Farm Resident Survey

3. Thank you!

Your time and effort on this survey will help develop the Chatham County Farmland Preservation Plan. This plan will provide recommendations for both short and long-term strategies to support agriculture and forestry in Chatham County. Once the plan is written, it will be presented to the county commissioners for endorsement. Once it is endorsed, it will be sent to NC Department of Agriculture for certification. When the plan is certified, the county will receive priority status for funding from NC Department of Agriculture's Agricultural Development and Farmland Preservation Trust Fund.

If you have any questions or would like more details, please contact TFeitshans@umo.edu.

Supplemental questions for interviews

For all:

1. Have you experienced any transportation issues affecting agriculture or agribusiness as the result of urban or suburban growth, or other factors?
 - Please describe.
 - Did you consult with NC DOT or other state or local agencies concerning these issues?
 - Were your issues successfully resolved? Please describe.
 - If not, what would be an adequate resolution for you?
2. Describe food insecurity in Chatham County. How do you measure this? Please describe. How are those in need of food assistance being helped? Please describe.
3. Describe any educational program in which you participate or sponsor.
4. Describe activities, e.g., marketing, publicity, that you support to promote agritourism.

For city/town managers:

5. How much of the business in your city/town is agricultural related?
 - How does your city/town support these businesses?
 - What has worked well in supporting these businesses?
 - What would help you improve your assistance to these businesses?
6. Please list and describe the farmers' markets in your city/town.
 - Please describe your city/town's involvement with farmers markets.
 - Are the farmers' markets that you list seasonal or year-round?
 - What additional support do farmers' markets in Chatham County need?
7. Has your city/town considered developing a farmland preservation program as authorized by N.C.G.S. § 106-736? Has your city/town considered adopting a voluntary agricultural district program as authorized by N.C.G.S. § 106-737?
8. Please describe any farm operations within the city limits of your city/town.

For county managers:

9. Cities or towns may request that the county in which they are located operate farmland preservation and voluntary agricultural district programs on their behalf. Has any city/town requested that Chatham County do this? Would Chatham County have interest in this if asked?

10. Has Chatham County considered adopting an enhanced voluntary agricultural district program as authorized by N.C.G.S. § 106-743.1?

Answers (raw data) to open-ended survey question:

Here are comments made by survey respondents:

- Increase veg. buffers of forested land to be logged. Mulch debris/slash after logging operation.
- Thank you!
- The issue of farmland preservation is one of the biggest challenges facing Chatham County. There is a very high chance that we could see a massive conversion of agricultural land into housing developments in the coming years if strong steps are not taken soon.
- Thank you for the opportunity to have input on this important issue.
- Regenerative farming can play a vital part in sequestering carbon, helping clean our waters, and increasing profits for farmers.
- Farm and forest lands are key not only to Chatham's character and history, they are essential for its future and ecological health. Preserving farm and forest lands should be a huge priority right now in the midst of very rapid development. Additionally, the health of the ecosystems on those lands should be promoted, with native plants and eco-friendly management practices being promoted and encouraged.
- I am concerned that the local politicians are more interested in increasing tax revenues through an increase in residential, municipal and industrial development and are definitely not interested in preserving and protecting Chatham County agriculture and forest lands.
- Agriculture and forestry are the bedrock of what makes Chatham County a wonderful place in which to live and work.
- Some of the questions (particularly 12) above would have benefited from a NA response or a Comment box to indicate additional thoughts. How can I (as a resident rather than a farmer) support our agriculture and forestry industries in Chatham, NC, and the US?
- If we continue to lose farmland and support overdevelopment, our county will lose the beauty and uniqueness that sets it apart from neighboring cities. We need to support farmers as much as possible by lowering the financial burden and regulations that hurt their ability to thrive here.

- The way our country is headed the more local farmers we have the better off we will all be.
- Some questions I could not answer since forestry was combined with farming. I'm opposed to clear cutting forest or non monitored timbering. Chatham Parks has destroyed Chatham and Pittsboro with it's massive deforestation... we do not want that.
- It is imperative that we preserve what makes Chatham County a beautiful, productive place to live.
- I filled this out from a resident perspective, but my partner and I are trained farmworkers and have been seeking affordable land for several years here. The development that is coming to our community as a result of VinFast, Wolfspeed, etc. is going to kill agriculture here, both from a land availability standpoint and an environmental standpoint. The county has really sold young and beginning farmers down the river...we can't see a financial or ecological place for us, and the county needs to bolster not only educational programs but *access* programs.
- We have an important opportunity to mitigate against the climate crisis while we work to support farmers and the Chatham County residents they feed.
- Present-use property tax value for beekeepers, with restrictions, is needed. Incentivize organic farming practices to protect soil, waterways and people. Farmland all over the US is being lost - Chatham County should protect and encourage farms, especially small farms. Local farms equal food security.
- Chatham County has poor consideration of resource needs in certain areas of the county.
- Many people moving to this area move here for the natural beauty of our county but in flooding the area with new homes, all of that will disappear. There has to be a better way or a compromise, build up instead of out? Conservation sub-divisions, nature reserves, conservation easements, etc.
- Chatham county is facing so many development pressures from the state. We need to preserve as much farmland and natural areas as we can so that we have something to share with the other surrounding

urban communities as they have already lost most of their green space and farmland. We only get one chance at this and we need to fight hard to keep it. Climate change will only make our farmland and natural areas that much more valuable.