A Guide for Governments on Building Local Food Economies

A guide for planners, economic developers, and local government professionals

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CEFS NC GROWING TOGETHER Connecting Local Foods to Mainstream Markets

USDA United States Department of Agriculture National Institute of Food and Agriculture

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About the Center for Environmental Farming Systems

CEFS is one of the nation's most important centers for research, extension, and education in sustainable agriculture and community-based food systems. It is recognized as a national and international leader in the local foods movement, and celebrated for its work in building consensus around policies, programs and actions that facilitate a vibrant local food economy.

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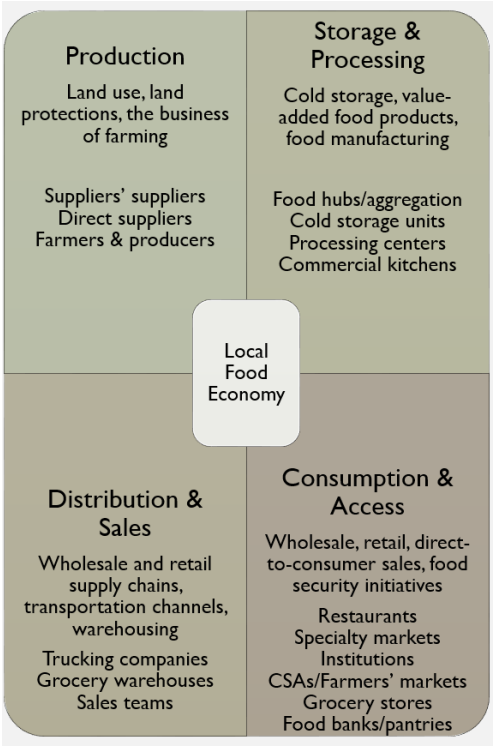
Introduction

This guide focuses primarily on North Carolina examples of local and regional governments and community advocates creating innovative local food economies. It serves as a tool to connect planners, economic developers, and other local government officials and administrators with resources for increasing the development of local food economies. The guide has three sections:

1. **Planning & Land Use for Local Food Economies:** planning, land use, and zoning issues that directly impact farms, food businesses, and other contributors to the local food economy;
2. **Economic & Community Development for Local Food Economies:** strategies for the retention, creation, expansion, and recruitment of farm and food businesses;
3. **Collaborating for Growth:** recommendations for non-traditional partnerships and inclusive planning strategies that bring together disparate elements of local food economies.



Local food economies encompass everything that is associated with a local food system. This includes the entire supply chain – from production to consumption – and affiliated businesses & structures.

Local Food Economies in North Carolina

Developing a local food economy – the system within which food is produced, distributed, and purchased within the same area – has been recognized as a way to revitalize traditional agricultural communities and energize urban, peri-urban, and rural landscapes alike.

Support for these systems includes the creation, retention, expansion, and recruitment of farms and food-related businesses in a town, county, or region, with a resulting positive impact on a variety of industries, including production, processing, storage, transportation, distribution, and wholesale and retail sale.

Developing local food economies is an important tool for protecting farmland and natural resources, and maximizing the environmental, social, and economic health of a community.[1]

[1] Garrett, Steven, and Gail Feenstra. (n.d.) "Growing a Community Food System." A Western Regional Extension Publication. Accessed May 25, 2012: http://smallfarms.wsu.edu/wsu-pdfs/WREP0135.pdf

Data from NCSU Agricultural and Resource Economics, 2016.

The range in sizes and types of businesses in a local food system diversifies the economic base, a characteristic of a resilient economy—one that can prevent, withstand, and quickly recover from major disruptions. [2] *Local food economies are also self-regenerating, with businesses linked along the supply chain, purchasing local inputs and selling to local consumers.*

For the purposes of this document, local is defined as food that is grown, raised, caught, and consumed within North Carolina; local agencies may adopt a narrower definition to meet their requirements and interests.

Agriculture is one of North Carolina's top industries, consistently ranking first or second, and bringing in more than $84 billion to the state's economy. Agriculture and associated industries are responsible for over 1/6 of the state's labor and income, and North Carolina ranks 8th in the nation for agricultural outputs.[3]

Local governments have a unique opportunity to work with the many experts within the food system – including Cooperative Extension agents, Soil & Water Conservation District staff and boards, planners, economic developers, and community groups – to promote a sustainable food system. There are multiple options for flexible local ordinances and incentives; citizen-led food councils; and small business development programs that rely on local governments' existing partners.

As local governments begin to involve themselves in the work of developing local food economies, the process can create stronger partnerships with existing agencies and new non-traditional partnerships that help ensure the health and economic vitality of both rural and urban areas.

Agricultural Economic Development in North Carolina

Agricultural economic development (AED) addresses the creation, retention, expansion, and recruitment of agricultural and food-related businesses in a town, county, or region. AED projects are planned and implemented in conjunction with farmland preservation planning, strategic planning, and traditional economic development.[4]

Agricultural economic development can provide important institutional support for local food systems, and can help connect farmers and food entrepreneurs to resources at the local level.

[2] U.S. Economic Development Administration (2016): https://www.eda.gov/ceds/content/economic-resilience.htm.
[3] https://cals.ncsu.edu/agricultural-and-resource-economics/2016/05/20/ag-and-agbiz-worth-84-billion-in-nc/.
[4] CEFS: Local Food Economies initiative (2016). https://cefs.ncsu.edu/resources/agricultural-economic-development-fact-sheet/.

Communities are using a number of different strategies to incorporate the goals of AED into their strategic and comprehensive plans, and taking steps to create policies that support innovative AED programs:

- Create a Farmland Protection Plan and its associated advisory board;
- Include a food system goal in the Strategic Plan and assign resources;
- Adopt a specific policy statement through planning, such as inclusion of specific regulations in the UDO (Unified Development Ordinance) or individual ordinances;
- Establish a department or division with this focus and allot funds;
- Incorporate AED into the economic development strategy or plan; and/or
- Establish cross-sector partnerships, such as public-private partnerships or nonprofits, focused on this work – typically through an MOU (Memorandum of Understanding) with other partners.

Currently, there are three Agricultural Economic Developers in the state, funded and authorized in different ways, reflecting the many factors that inform decisions about establishing AED. There are many other governments researching how to establish and fund AED at the local and regional government level.

Mark Williams, Henderson County
Focus: Apple Industry | www.agrihc.org
2020 Plan Authorizing AED Position
http://www.hendersoncountync.org/planning/ccp/sections/13_ag_element.pdf

This position was created as part of the comprehensive planning process, which emphasized the importance of the apple industry in Henderson County, and was county-funded. Mr. Williams directed the recruitment of Bold Rock Hard Cider company to Henderson County as a new market for the apple industry.

Dawn Jordan, Polk County
Focus: Markets and Mill Spring Ag Center | www.polkcountyfarms.org
Polk County Economic Development Department
http://www.polknc.org/agricultural_economic_development.php#.V4Y5t7grJ_M

Ms. Jordan works in the first county to have an AED, a position created in 2011 in response to a land-use planning campaign which aimed to balance preservation of farmland and natural resources with second-home and tourism development. The position works closely with small and mid-scale farmers, market gardens, and community advocates of local food systems.

Mike Ortosky, Orange County
Focus: Regional Markets & Processing | www.growinorangenc.com
Piedmont Food & Agriculture Processing Center: http://pfapnc.org/

Orange County created this position as a response to the impending loss of a university research farm and the need for county-level control of a community certified kitchen incubator. Mr. Ortosky focuses on creating new markets for farmers to encourage their continued farmland use, and on preservation and recruitment of additional food businesses.

Brief Research Overview on Local Foods

A growing body of research links local food systems to a variety of positive economic and health-related outcomes. Studies have found that supply chains linking local production to local consumption generate greater revenues for producers, with net income ranging from equal to more than seven times the revenue gained from conventional national or global supply chains.[5] Local food systems can also reduce farmland loss by creating opportunities for the next generation of farm owners.

The economic benefits extend to the broader community, with numerous studies finding that food produced and consumed locally creates more economic activity in an area than does comparable food produced and imported from a non-local source.[6] The greater impact of local food systems on farm and community businesses (through increased revenues and employment) is due both to the transactions that occur between local consumers and local farms and to the impact of keeping local dollars in the community to be re-spent at other businesses.

The economic impact is further enhanced when inputs to the farm are sourced locally and the farm outputs are used by food entrepreneurs for value-added products. Recent research on local food systems uses the tools of economic development professionals, including IMPLAN, to estimate economic impacts. USDA's Toolkit for Calculating the Economic Impact of Local Foods (accessed at www.localfoodeconomics.com) is the first national analysis tool for examining how local food businesses and projects contribute to economic impact.

CEFS published an annotated bibliography and literature review on the relationship between economic development and local food systems in 2016.

Annotated Bibliography
https://cefs.ncsu.edu/resources/annotated-bibliography-local-food-in-economic-community-development/

Literature Review
https://cefs.ncsu.edu/resources/literature-review-food-systems-and-economic-development/

Local food systems can also improve the health of community members. Epidemiological studies have found correlations between higher levels of direct-to-consumer farm sales and lower levels of mortality, obesity, and diabetes.[7] These findings supplement qualitative studies that have linked more direct connections to food (via direct contact with the farmers who produce the food, such as through a farmers market or a Consumer Supported Agriculture buying program,

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[5] King, Robert P., Michael S. Hand, Gigi DiGiacomo, Kate Clancy, Miguel I. Gómez, Shermain D. Hardesty, Larry Lev, and Edward W. McLaughlin. 2010. *Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains.* ERR-99, US Department of Agriculture, Economic Research Service.

[6] Enshayan, Kamyar 2008. *Community Economic Impact Assessment for a Multi-County Local Food System in Northeast Iowa.* Leopold Center for Sustainable Agriculture Final Report M08-05. Henneberry, S.R., B. Whitacre, and H.N. Agustini. 2009. "An Evaluation of the Economic Impacts of Oklahoma Farmers Markets." *Journal of Food Distribution Research* 40: 64-78.
Lev, L., L. Brewer, and G. Stephenson. 2003. *How Do Farmers Markets Affect Neighboring Businesses?* Oregon Small Farms Technical Report No. 16, Small Farms Extension Program, Oregon State University, Corvallis, OR. Myers, G.S. 2004. *Howard County Farmers Market Economic Impact Study 2004.* Report. Howard Co. (MD) Economic Development Authority, Agricultural Marketing Program. Otto, D., and T. Varner. 2005. *Consumers, Vendors, and the Economic Importance of Iowa Farmers Markets: An Economic Impact Survey Analysis.* Iowa State University, Leopold Center for Sustainable Agriculture. Sonntag, Vicki. 2008. *Why Local Linkages Matter: Findings from the Local Food Economy Study.* Seattle, WA: Sustainable Seattle.

[7] Ahern, Melissa, Cheryl Brown, and Stephen Dukas. 2011. "A National Study of the Association between Food Environments and County-Level Health Outcomes." *The Journal of Rural Health* 27(4): 367-379. Salois, Matthew. 2011. "Obesity and Diabetes, the Built Environment, and the Local Food Economy in the United States, 2007." *Economics and Human Biology.*

via participation in a community garden, or living in the household of a community gardener) to improvements in eating behaviors[8] and enhanced social activity and civic engagement.[9]

The Center for Environmental Farming Systems (CEFS)

The Center for Environmental Farming Systems (CEFS) (http://www.cefs.ncsu.edu/) develops and promotes food and farming systems that protect the environment, strengthen local communities, and provide economic opportunities in North Carolina and beyond. It was established in 1994 by North Carolina State University (NCSU) and North Carolina Agricultural & Technological State University (N.C. A&T) along with the North Carolina Department of Agriculture and Consumer Services (NCDA&CS). These founding partners work together and with state and federal agencies, non-governmental organizations, farmers, and residents.

CEFS' key focus is the establishment of sustainable local food systems. The Center helped lead North Carolina to its first major statewide, multiagency action, through implementation of its comprehensive guide, *From Farm to Fork: A Guide to Building North Carolina's Sustainable Local Food Economy*.[10]

In addition to a strong and diverse field research program on its 2,000-acre facility in Goldsboro, N.C., CEFS manages core programs including youth and student food activism and advocacy; student-led research and real-world experience; procurement, outreach, and education efforts; and programs that increase the market opportunities for small- and mid-scale farms, fisheries, and producers across the state.

These and other integrated initiatives create infrastructure, organizational systems, and policies that support the development of strong, economically viable food systems that deliver equitable access and benefits to vulnerable populations.

County Extension Centers, like this one in Sampson County, have staff who can provide a wealth of local knowledge about farming and food systems and are invaluable partners for local governments.

[8]Alaimo, Katherine, Elizabeth Packnett, Richard Miles, and Daniel Kruger. 2008. "Fruit and Vegetable Intake among Urban Community Gardeners." *Journal of Nutrition Education and Behavior* 40(2): 94-101.
[9] Saldivar-Tanaka, Laura, and Marianne E. Krasny. 2004. "Culturing Community Development, Neighborhood Open Space, and Civic Agriculture: The Case of Latino Community Gardens in New York City." *Agriculture and Human Values* 21: 399-412.
[10] Center for Environmental Farming System's Farm to Fork Action Plan 2010: www.cefs.ncsu.edu/resources/stateactionguide2010.pdf

Planning & Land Use for Local Food Economies

Uniting Planners and Communities through Local Food System Development

For the past several decades, traditional planning approaches rarely accounted for food systems. As the American Planning Association (APA) has noted[11], a number of factors affected this decision, including the perceived gap between the built environment and food systems; a general feeling that the food system was working without the need for interference; and a perception that planning's emphasis on public goods and infrastructure didn't include food production or consumption.

In recent years, however, planners have become more interested in food systems at the local, regional, and national level. A number of factors have heightened interest in food system planning, including the need for emergency planning for crisis situations, health and wellness initiatives directed at obesity, increases in food insecurity and hunger, consumer and community interest in knowing the origin of their food, and the growing influence of food policy councils across the country.

Planners are uniquely positioned to support initiatives to increase access to healthy and local foods while supporting farmers and food businesses. While food policy councils are effective community advocates, and agricultural advisory boards of all kinds can provide specific resources to local governments, planners have the capacity and skills needed to help communities address long-term, big-picture food system goals. As the APA acknowledges, planners are trained in "the analysis of the land use and spatial dimensions of communities, externalities and hidden costs of potential policy decisions, interdisciplinary perspectives on community systems like the food system, and ways to link new goals like community food systems into sustainable and healthy community goals."[12]

These are valuable skills for groups working on local food initiatives, which are often comprised of farmers, community members, urban gardeners, and others whose experience in government is limited. Working with such groups provides planners an opportunity to utilize their skills at a

[11] American Planning Association, 2007. Planning & Food Systems Policy Guide. https://www.planning.org/policy/guides/adopted/food.htm.
[12] Food Systems Planning Committee, APA, 2008. White Paper on Planning & Food Systems. https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/resources/ontheradar/food/pdf/apafoodwhitepaper.pdf.

systems-planning level while also connecting one-on-one with citizens across a broad range of interests.

Planning for agriculture at the local and regional level can have positive impacts across a broad range of planning goals:

- Meeting community requests for food access and farmer support;
- Revitalizing downtown areas with farmers markets and food businesses;
- Providing new uses for vacant land;
- Increasing community health through access to food;
- Protecting farmland and managing increased demands for development;
- Improving pollution and water quality through working lands protection;
- Capitalizing on economic benefits through increased markets for regional products;
- Building infrastructure, such as water and sewer and broadband, and infrastructure business opportunities, such as cold storage or distribution; and
- Supporting other natural, built, and human resource development associated with long-term strategies for community success. [13][14]

Innovation in Planning & Economic Development

Integrating food systems and planning provides innovative opportunities at the leading edge of the planning sector, especially in regionalism, multi-disciplinary planning, and applied technology. Regionalism, an economic development and planning approach that considers needs across a defined geographic area that includes multiple units of local government, allows for long-term market-based partnerships as well as coordinated strategies for development.[15] By its nature, agriculture is a regional enterprise, and offers communities a way to work together on important development issues. Food systems also bring together a diverse group of stakeholders from multiple industries and with varying motivations (see the Collaborating for Success section of this document). This allows planners to utilize multiple approaches, particularly from the economic development, health, and design fields, to solve complex problems that affect every population within a community. Food systems planning and development is at the leading edge of innovation in public service, offering multiple ways for unique solutions to be implemented. Technological solutions, from cloud-based farm data management to app-based food ordering to gleaning matches between farms and food banks, provide capacity and capability to find real-world solutions.

This section discusses approaches that planners can use to outline long-term goals for food systems within a community, as well as specific policy tools such as those related to farmland preservation and zoning. Additional resources can be found through the American Planning Association (https://www.planning.org/resources/ontheradar/food/) and through the SUNY Buffalo Growing Food Connections Project, which brings together urban and regional planning

[13] Hodgson, K. (2012). Planning for food access and community-based food system." *US: American Planning Association.*
[14] APA 2007. https://www.planning.org/policy/guides/adopted/food.htm.
[15] Association of Wisconsin Regional Councils, 2014. http://www.awrpc.org/Regionalism.html.

resources with local food systems research and implementation projects (http://growingfoodconnections.org/tools-resources/policy-database/.)

***Authors' Note:** Pending final decision, this guide has been prepared without accounting for the proposed changes to planning & development regulation in the North Carolina General Assembly Local Government Regulatory Reform Bill. House Bill 548 has been under discussion and review since 2015, but has been referred to committee at the end of the June 2016 session (see here for the UNC School of Government analysis of the bill's various changes to regulatory authority). Planners and developers should monitor changes created by this bill, as they will impact many of the regulatory and enforcement capacities of local governments. Many of these changes could impact how agriculture and food systems are integrated into ordinances and planning strategies.*

Calculating Economic Impact

Central to the argument that investment in a local food system will generate economic dividends for the local economy is the idea that food dollars spent locally will experience a multiplier effect as the local farmers, in turn, purchase intermediate inputs, labor, and capital from within the localized economy (O'Hara, 2013).[16]

Though this theory is fundamental to the ongoing conversation among economic developers and local food advocates, available findings are difficult to generalize across a diverse set of communities and economies. For more information about recent research into the economic impact of local foods, please see the Economic & Community Development section of this guide (p. 39-40).

Common Topics: Community Gardens, Urban Agriculture, Mobile and Roadside Markets, and Farmers Markets

Community Gardens

Community gardens are defined as any public or private facility used for the cultivation of edible and ornamental plants by more than one person.[17] Careful planning is important to locate community gardens outside environmentally sensitive areas and within walking distance of local residents. Advocates also need to consider many issues including zoning, land ownership for long-term availability of the garden site, business licenses required for selling of produce, and emerging federal health and safety laws on agricultural products.

Community gardens in low-income areas can be especially valuable, as they provide lower-cost fresh and healthy food to residents who may not have access to a grocery store, cannot afford high prices for fresh produce, and have difficulty accessing a farmers market. Community gardens may place less strain on local government budgets and capacities than more difficult

[16] O'Hara, J.K., & Pirog, R. (2013). Economic impacts of local food systems: Future research priorities. *Journal of Agriculture, Food Systems, and Community Development,* 3(4), 35-42.

[17] American Planning Association. *A Planners Dictionary.* Planning Advisory Service Report Number 521/522. Available at www.planning.org

solutions to food access, such as supermarket recruitment or development of appropriate parcels of land for grocery stores.

In North Carolina, many citizen groups, non-profit organizations, and state agencies have collaborated to promote and establish community gardens. Community gardens often benefit from state agencies and from the experience of leaders and staff in county and municipal parks and recreation offices, Cooperative Extension offices, health departments, community organizations, and local schools. Local garden clubs can provide key volunteers and expertise to community garden efforts, and often take the lead on implementing these projects.

Farmers' markets, urban gardens, community gardens, and roadside markets provide a number of economic and community benefits.
Photo courtesy of JJ Richardson, CEFS.

For example, North Carolina Community Garden Partners began with a partnership between the NC Division of Public Health, the NC Cooperative Extension Service, and community garden advocates across the state. Together the partners have created a website, social media site, gardening primer, and community garden listserv, and the group hosts regular meetings and workgroups to foster its mission of increasing the number of successful and sustainable community gardens in North Carolina.

Another promising initiative was started in 2011, when the North Carolina Recreation and Parks Association partnered with Blue Cross and Blue Shield of North Carolina to establish Nourishing NC, an initiative with the objective of establishing a community garden in every county in North Carolina by 2013. As of 2016, only 7 counties do not have a reported community garden on the list. This initiative was one of the "game changer" ideas resulting from the 2010 CEFS *Farm to Fork* initiative (http://www.cefs.ncsu.edu/whatwedo/foodsystems/f2fstatewideinitiative.html).

Additional Resources for Community Gardens

- A 2011 Raleigh, N.C. report providing guidance and suggested zoning ordinance changes to allow community gardens across the city: *Urban Agriculture and Community Gardens in the City of Raleigh:* http://www.raleighnc.gov/content/PlanCurrent/Documents/Administration/CommunityGardenReport.pdf.
- The National Policy and Legal Analysis Network to Prevent Childhood Obesity created a set of model land use policies to help communities create gardens: http://www.nplanonline.org/nplan/community-gardens.
- The 2015 APA guide to community food system assessments can be found at: http://www.planning.org/pas/memo/2015/nov/ .

- The American Community Gardening Association's website offers comprehensive information on community gardens: http://www.communitygarden.org/learn/starting-a-community-garden.php.
- The NC Community Garden Partners website http://www.nccgp.org/ and the community gardens website hosted by the NC Cooperative Extension Service (http://nccommunitygarden.ncsu.edu/index.html) provide resources on community gardens and links to gardens throughout North Carolina.
- The NC Division of Public Health Physical Activity & Nutrition Branch and the NC Cooperative Extension Service created an online community garden primer: http://nccommunitygarden.ncsu.edu/primer.html. Additional resources are available at East Smart Move More NC: http://www.eatsmartmovemorenc.com/Gardens/Gardens.html.
- Also see *Cultivating Community Gardens: The Role of Local Governments in Creating Healthy, Livable Neighborhoods,* from the Local Government Commission: http://www.lgc.org/freepub/docs/community_design/fact_sheets/community_gardens.pdf.

Urban Agriculture

Urban farms within cities can be small in acreage, and the food can either be shared or sold. Some farms set up a formal sales operation to distribute wholesale to restaurants, while others sell through direct-to-consumer channels such as farmers markets (often on site) or through a Community-Supported Agriculture (CSA) system.

Urban farms provide more than just working green space for city dwellers: they can also be employment and value-added entrepreneurial activities for residents and a municipal revenue source based on the sales tax levied on farm products sold there.[18] Will Allen's *Growing Power* model (growingpower.org), combining urban farming with training and technical assistance to community members to learn sustainable practices for growing, processing, marketing, and distributing food, has been adopted in a number of urban centers and continues to spread.[19]

Urban farms offer many benefits, such as access to local fresh food, jobs, and educational opportunities. A study conducted in 2008 highlighted the benefits of middle- to large-scale urban agriculture and provided urban planners with six existing models of urban farms across the country.[20] Bio-intensive production methods, often used in land-scarce urban settings, offer a range of benefits, including a more than 50-percent reduction in water usage and purchased fertilizers, a 100 percent increase in soil fertility, and production of two to six times more food compared to conventional methods.[21] Some farm products sold in their original state by producers may be exempt from sales tax, depending on the state and the size of the farm. In

[18] Brown, K., Carter, A. (October 2003). *Urban Agriculture and Community Food Security in the United States: Farming from the City Center to the Urban Fringe.* Community Food Security Coalition. www.foodsecurity.org
[19] Growingpower.org
[20] Myers, A. (May 2008) Vitalizing the Vacant – The Logistics and Benefits of Middle – to- Large-Scale Agricultural Production on Urban Land. Berkeley: University of California. http://thoughtsonthetable.files.wordpress.com/2008/05/myersvitalizingthevacant1.pdf
[21] Jeavons, J.C., 2001. *Biointensive Mini-Farming* Journal of Sustainable Agriculture (Vol. 19 (2), 2001, p. 81-83); Jeavons, J. How to Grow More Vegetables than You Ever Thought Possible on Less Land Than You Can Imagine (Berkeley: Ten Speed Press, 2002), xii-xiii.

North Carolina, this exemption was repealed and amended in 2014, and farmers must meet particular requirements to be exempt from sales tax (N.C.G.S. 105-164.13).[22]

In the past few years, the issue of urban chickens has been brought up in many town meetings, with advocates noting the benefits of fresh eggs, free natural fertilizer, and natural pest control.[23] As of 2016, at least 31 N.C. municipalities and counties allowed "backyard chickens." In some cities, groups host events to promote backyard chickens as agritourism, such as Raleigh's annual "Tour d' Coop."[24] Local governments can examine whether chickens and other livestock are allowed under their zoning, animal control, or other applicable ordinances. A number of factors should be considered, including whether to allow roosters, the number of chickens, whether to allow commercial sales of eggs or meat, distance from dwellings, amount of land required, enclosure of the house and run area, and sanitation. State and federal regulations also apply to the processing and sale of meat and eggs.

Urban chicken coops are often a prominent issue for municipal and county planners. Photo Courtesy of Brittany Ridge Farms | Christy Crumpler.

One example of urban farm permissions is in the City of Winston-Salem, where the planning department allowed urban farm activities in all residential districts in the city after urban agriculture was approved as a primary strategy in the Legacy 2030 Comprehensive Plan for Winston-Salem and Forsyth County. The department developed a community guide to approving urban agriculture projects (http://cityofws.org/Departments/Planning/Urban-Agriculture) and later directed its staff to complete a Food Access Report for the City, outlining needs and barriers for access in all communities.

Additional Resources for Urban Gardens

- American Planning Association guide to urban agriculture planning: https://www.planning.org/publications/book/9026887/.
- Community Food Lab's 2014 guide to how farms and gardens create urban value: http://communityfoodlab.org/open-food-booklet-series/.
- A 2015 change in Winston-Salem accounted specifically for urban agriculture, planning staff were directed to research food access, and a citizens' toolkit for urban farming was created and made available to citizens: http://cityofws.org/Departments/Planning/Urban-Agriculture.

[22] NC Department of Revenue Sales Tax Amendments for Agricultural Producers (2014): http://www.dornc.com/taxes/sales/impnotice062514_2.pdf.
[23] Backyardchickens.com; North Carolina Cooperative Extension Service, *Keeping Garden Chickens in North Carolina*: http://www.ces.ncsu.edu/depts/poulsci/tech_manuals/Backyard_Chickens.pdf
[24] Raleigh NC Tour d'Coop . http://hensidethebeltline.blogspot.com/ accessed 5-17-2010

- A 2011 Raleigh, N.C. report providing guidance and suggested zoning ordinance changes to support urban agriculture: *Urban Agriculture and Community Gardens in the City of Raleigh:*
- http://www.raleighnc.gov/content/PlanCurrent/Documents/Administration/CommunityGardenReport.pdf.
- The City of Durham allows limited agriculture such as chickens within city limits: http://www.ci.durham.nc.us/udo/.
- The North Carolina Cooperative Extension Service offers a helpful guide on raising backyard chickens, *Keeping Garden Chickens in North Carolina*: http://www.ces.ncsu.edu/depts/poulsci/tech_manuals/Backyard_Chickens.pdf.
- The American Planning Association published a report in 2011, *Urban Agriculture: Growing Healthy, Sustainable Places*. This document considers the challenges and opportunities for municipal and county governments in supporting urban agriculture and includes case studies on policies and programs across the U.S. For more information about this report, visit http://planning.org/apastore/search/Default.aspx?p=4146.
- A study conducted in 2008 highlights the benefits of middle- to large-scale urban agriculture and provides urban planners with six models of urban farms across the country: *Vitalizing the Vacant: The Logistics and Benefits of Middle- to Large-Scale Agricultural Production on Urban Land:* http://thoughtsonthetable.files.wordpress.com/2008/05/myersvitalizingthevacant1.pdf
- The American Planning Association's *Policy Guide on Community and Regional Food Planning* (2007) provides general and specific policies to support and strengthen local, sustainable food systems: http://www.planning.org/policy/guides/adopted/food.htm.
- The laws regarding farmer sales tax exemptions can be found here: http://www.dornc.com/taxes/sales/impnotice062514_2.pdf. Carolina Farm Stewardship Association keeps an updated policy guide on this topic here: https://www.carolinafarmstewards.org/nc-sales-tax-exemption-for-beginning-farmers/.

Roadside Stands and Mobile Markets

In many rural agricultural areas and in the urban areas that they border, farmers may choose to sell directly to consumers by parking their trucks loaded with fresh produce alongside the road, usually with a sign advertising fresh produce for sale. This type of mobile market is usually allowed in county ordinances related to agriculture. Due to the increase in consumer demand for fresh, local food, many cities and towns in North Carolina also allow mobile markets in downtown areas, especially if a farmers market has not been established. Some municipalities allow outdoor fresh produce stands to be set up in empty parking lots within the town limits during the growing season.

Depending on whether or not the roadside stand is located within a county jurisdiction or municipality, there are a number of questions to consider relating to roadside stands and mobile markets. Is a vendor's license or permit required for roadside stands? Do sign ordinances apply? Is the roadside stand located on the property where the products were produced?

A stand may be allowed under county zoning if it is part of the farm operation and the items sold are produced on that farm. Counties and municipalities should consider amending their zoning ordinances to allow for the retail sale of produce and agricultural products either on the farm where they are produced or at off-site farm stands or mobile produce trucks. Ordinances

developed to allow the sale of farm produce at off-site locations allow growers to benefit from higher population densities and traffic volumes that may exist some distance away from the farm.

Landowners who participate in EVAD programs can sell products, on land enrolled in an EVAD, that are not produced on site and receive up to 25 percent of gross sales, while still having those sales fall under the bona fide farm purpose exemption from county zoning. Additionally, the production of any non-farm product on land enrolled in an EVAD program recognized as a "Goodness Grows in North Carolina" product is considered a bona fide farm purpose that may also be exempt from county zoning (N.C.G.S. § 106-743.4(a)). An example of a non-farm product is peanut butter produced from peanuts originating off site from other farming operations.

Communities may allow some flexibility for growers who need to bring in and sell agricultural products from other growers in the same area. This opportunity allows growers to generate additional income and offer a more diverse range of local products. An allowance of collective sales from local farmers is not the same as resell practices that bring food in from outside the region.

Additional Resources for Roadside Stands and Mobile Markets

- See Appendix D for a sample ordinance from Nags Head, North Carolina that includes what can be sold, the size of the farm stand, and the display and location of signage and products.
- The American Planning Association provides a guide on zoning issues related to urban markets and street vendors. This publication defines and describes eight key issues for planners to consider when planning for public markets. See for Public Markets and Street Vendors: https://urpl.wisc.edu/sites/urpl.wisc.edu/files/people/morales/ZPfeb09.pdf.
- For information on the Goodness Grows in North Carolina program: http://www.gottobenc.com/become-a-member.

Farmers' Markets

Farmers markets provide an opportunity for urban and rural residents to purchase fresh, local foods close to home. They can increase the incomes of local farmers and at businesses adjacent to the markets and bring tourism dollars to downtown areas. A farmers market has a multiplier effect on the local economy, because more money stays in the community and is recirculated.

In one studied community, for every $100 spent at the local farmers market, $62 was recirculated - for a total local impact of $162. In comparison, for every $100 spent at an average grocery store, only $25 is re-spent locally.[25]

North Carolina now has well over 200 farmers markets.[26] In order to promote thriving farmers markets, counties and municipalities can revise their land-use policies to allow existing markets and promote new ones by defining and listing farmers markets as permitted uses within their zoning ordinances. Unless it is specified as allowed in the zoning regulations, permitting a

[25] Sonntag, V. (April 2008). *Why Local Linkages Matter – Findings from the Local Food Economy Study* – Sustainable Seattle. Available at: http://ecopraxis.dreamhosters.com/?p=111

[26] NC Department of Agriculture and Consumer Services Available at: http://www.ncagr.gov/markets/facilities/index.htm

farmers market to be established or remain in use could be considered a violation of the zoning ordinance.

Governments can also promote farmers markets by providing a site with shade and plumbing, renting space to the farmers market for a nominal fee (a $1 fee is often used), helping advertise the market, providing funding for a market manager, and making sure the markets are accessible via public transportation. Farmers market organizations often work with local governments to provide the administrative framework (rules, regulations, membership, financial record-keeping, etc.) and insurance.[27]

Grower-only markets (those that restrict sales to only items produced by the seller) do more to support developing local food economies than markets that allow non-local produce to be sold alongside local producers. These non-local markets can confuse and anger consumers, who visit markets to support local agriculture, and can anger farmers, who may perceive that these "local" markets are being advertised inaccurately.

A number of N.C. farmers markets are working to allow the use of Electronic Benefit (EBT) cards (formerly Food Stamps) that are issued to North Carolina Food and Nutrition Services Program participants. This increases the availability of fresh, local food to people with low incomes and brings new customers to the markets and increases sales for farmers. Currently, at least 53 N.C. farmers markets or individual farmers market vendors accept EBT cards.

Additional Resources for Farmers Markets

- NC Cooperative Extension offers dozens of resources to new and developing farmers markets in North Carolina: https://localfood.ces.ncsu.edu/local-food-marketing-markets/local-food-farmers-markets/.
- The North Carolina Department of Agriculture and Consumer Services offers a directory of pick-your-own farms, roadside farm markets, and farmers markets throughout North Carolina: http://www.ncfarmfresh.com/.
- The policy nonprofit Change Lab Solution's document, *Establishing Land Use Protections for Farmers Markets*, provides sample land use policies to serve as models for local governments' comprehensive plans and zoning ordinances: http://changelabsolutions.org/publications/establishing-land-use-protections.
- The National Conference of State Legislature's *Healthy Community Design Legislation Database* is a searchable database of state legislation and includes topics such as smart growth, farmers markets, nutrition, and agriculture: http://www.ncsl.org/issues-research/health/healthy-community-design-and-access-to-healthy-foo.aspx.
- USDA's guide: *Supplemental Nutrition Assistance Program (SNAP) at Farmers Markets: A How-to Handbook:* http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5085298&acct=wdmgeninfo.
- The USDA's Farmers Market Promotion Program provides grants for the creation of farmers markets and other direct-to-consumer marketing opportunities: http://www.ams.usda.gov/AMSv1.0/FMPP.

[27] Email correspondence from David Goforth, Cabarrus County, NC. August 5, 2010.

- Appalachian Sustainable Agriculture Project's 2012 publication on increasing low income access to farmers markets can be found here: http://asapconnections.org/downloads/asap-farmers-markets-for-all-full-report.pdf.
- NC Department of Commerce and East Carolina University published "Local Planning for Healthy Communities," a toolkit for local governments interested in health and wellness, in 2013: https://www.ecu.edu/cs-cas/plan/upload/Healthy-Communities-Planning-Guidebook-for-web-minus-pages.pdf.

Comprehensive & Strategic Plans

Elected officials in county and city governments rely on community input and comprehensive land-use plans to make decisions regulating development and use of public and private lands. The plans guide a community's growth, as well as the enactment and amendment of zoning and other ordinances. Through comprehensive plans, residents work together to create a future that considers the prosperity and well-being of the region. Agriculture should be included because it is a key contributor to the local economy and community health and because farmland, forestland, and horticultural lands can provide a number of other benefits to a community, including open space and wildlife habitat.

Many communities across the country are including sustainable, local foods in their region's long-term plans. The impetus for food system planning often begins with municipal, county, regional, or state food policy councils that engage with government officials, conduct food system assessments, and make recommendations based on the findings. Food policy councils and food system assessments are discussed in more detail later in this document.

In North Carolina, the NC Association of Regional Councils of Government has included small-scale agriculture and food system development in its NC Tomorrow Comprehensive Plan. Food systems meet the requirements of a number of guiding standards and principles for comprehensive planning, including EDA Investment Priorities and EPA/HUD Livability Principles for such principles as environmentally sustainable development, valuing communities and neighborhoods, enhancing economic competitiveness, fostering resilience and regional successes, and increasing multi-disciplinary collaboration.[28]

Additionally, Piedmont Triad Regional Council (covering twelve counties) recently worked with CEFS' Community Food Strategies team to conduct regional planning and visioning for a collaborative approach to the local food economy.[29] Piedmont Together, the regional initiative to explore development opportunities, focused its food system work on examining networks of aggregation and distribution hubs[30] and farm incubator projects.[31]

Citizen input and long-term strategic planning are important to the overall success of these efforts. The effectiveness of farmland protection planning is enhanced when farmers are encouraged and given concrete opportunities to participate in the planning process. An

[28] NCARCOG, 2016: Guiding Principles and Standards, NC Tomorrow. http://www.ncregions.org/nc-tomorrow/guiding-principles-and-standards/.
[29] CFS, 2016: https://communityfoodstrategies.com/2016/05/16/triad-regional-meeting/.
[30] http://piedmonttogether.org/report/planning-networked-produce-storage-and-aggregation-system-piedmont-triad-region
[31] Piedmont Together, 2014. Regional Projects: Food Systems. http://piedmonttogether.org/topics/food-systems.

important consideration when creating comprehensive plans is to budget sufficient funds to employ staff to actually implement the plan. Farmland protection plans can also be included or referenced in regional, county and municipal comprehensive plans.

Additional Resources for Comprehensive & Strategic Plans

- The North Carolina Division of Public Health published a 2014 guide for incorporating health considerations into comprehensive plans: http://www.eatsmartmovemorenc.com/HealthConsiderations/Texts/North_Carolina_Guide_to_Incorporating_Health_Considerations.pdf.
- Henderson County included agriculture as an element in their 2020 Comprehensive Plan (http://www.hendersoncountync.org/planning/ccp/sections/13_ag_element.pdf). The plan highlights the need to promote and expand Voluntary Agricultural Districts (discussed below), considers the feasibility of creating a farmland protection fund, and recommends that the county give agricultural enterprises the ability to tap into existing economic development and tourism promotion programs and services**.** The plan was a key element in creating a position for county agricultural economic development (discussed in Section II).
- The State University of New York recently released a document giving numerous examples of food system policies enacted in local government plans across the U.S.: *Planning to Eat: Innovative Local Government Plans and Policies to Build Healthy Food Systems in the United States:* http://cccfoodpolicy.org/sites/default/files/resources/planning_to_eat_sunybuffalo.pdf.

Farmland Preservation Planning & Tools

Farmland protection initiatives protect farmland, farmland-dependent businesses, and employment in these businesses. Agriculture and agribusiness are North Carolina's leading industries, producing 20 percent of the state's income, and employing 17 percent of the state's workforce.[32] Protecting farmland means protecting the economic and social vitality of North Carolina communities.

Farmland preservation is vitally important for maintaining the appropriate land on which to grow food. North Carolina ranks as one of the states with the greatest loss of farms and farmland, with 2,695 farmers and 100,000 acres lost between 2007 and 2012.[33]

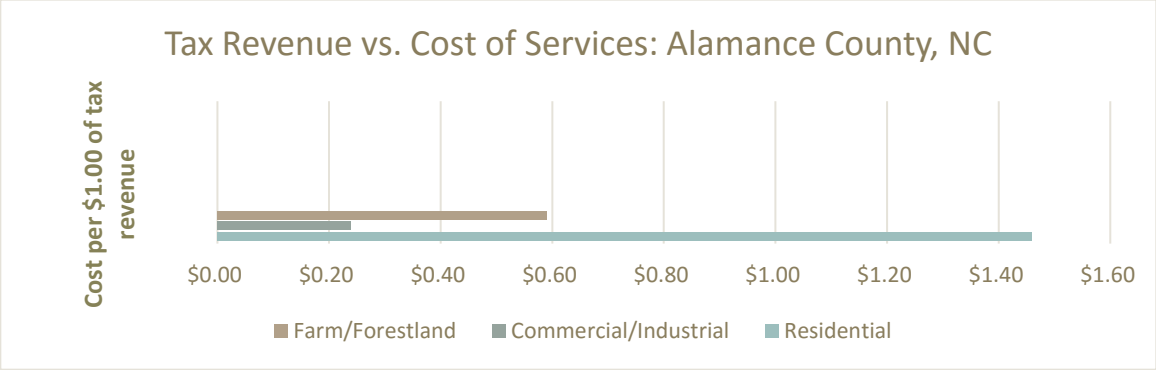
The average age of a farmer in N.C. is 59, and the aging of farmers increases the likelihood that more acreage will transition from farming to development in the next decade. This loss of farmland represents a loss of cultural history, a loss of knowledge of farming techniques and practices, and a loss of economic opportunity in rural and urban areas.

[i] North Carolina Agricultural Development Farm Protection Trust Fund: http://www.ncadfp.org/aboutus.htm

[33] North Carolina Department of Agriculture & Consumer Services - Agricultural Statistics - 2007 Census of Agriculture See: http://www.ncagr.gov/stats/census/highlights.htm

The businesses that support local farms and that provide employment are also threatened, including traditional agricultural supply companies, associated businesses such as fuel suppliers and fertilizer dealers, and food processing and distribution companies.

Another important economic factor for county and municipal governments to consider is the cost of services for housing developments versus farms. When a new housing development moves into what was once farmland, counties and cities must build infrastructure in the form of roads, schools, and water and sewer, and provide services such as fire, police, and emergency medical services. A number of studies in N.C. counties indicate that residential properties can cost counties more in needed services than they provide in revenue, while farms and forestlands pay more taxes than the services they require.[34]



For example, for every dollar of revenue that Alamance County collected in 2010, the cost of providing services to various types of properties were as follows: residential ($1.46), commercial/industrial ($0.23) and farm/forestland ($0.59).[35] These results do not mean that local governments should not allow development, but they do indicate the importance of balancing residential development with farms and forestlands.

Counties and municipalities can contribute to protecting the future of working lands in agriculture and forestry by developing long-term plans that use tools to address community food issues and needs. A variety of existing tools are available for municipal and county governments working to conserve working farms and forests.

Some tools local governments may want to consider are cost-share programs, right-to-farm laws, purchase of development rights, present-use value taxation, agritourism, funding from federal and state programs, and technical assistance through the North Carolina Cooperative Extension Service, North Carolina Soil and Water Conservation Districts, and universities and colleges across the state.[36] The following sections provide an overview of farmland protection tools and county and municipal ordinances that can be used to protect working farmlands.

[34] Farmland Information Center fact sheet, "Cost of Community Services" (Northampton, Mass.: American Farmland Trust, 2010). See: http://www.farmlandinfo.org/sites/default/files/COCS_08-2010_1.pdf
[35] Ibid
[36]North Carolina Department of Environment and Natural Resources. *Working Lands Toolbox.* Available at http://wfs.enr.state.nc.us/pages/WL_Toolbox.html

Additional Resources for Farmland Preservation Planning & Tools

- In 2008 and 2009, CEFS convened hundreds of food-system stakeholders across North Carolina in regional meetings, which concluded with a statewide summit, to develop "game-changer" strategies to transform North Carolina's food system. These strategies, and other outcomes of the process, are detailed in *From Farm to Fork: Building a Sustainable Local Food Economy in North Carolina*, a 100-plus page comprehensive guide to statewide action: https://cefs.ncsu.edu/wp-content/uploads/stateactionguide2010.pdf.
- The USDA and American Farmland Trust provide a wealth of information on farm preservation and stewardship, and a comprehensive guide to farmland preservation in North Carolina, called *Planning for an Agricultural Future: A Guide for North Carolina Farmers and Local Governments*: http://www.farmlandinfo.org/sites/default/files/FINAL_NCP4Ag_AFT_1.pdf.
- The American Planning Association's 2007 *Policy Guide on Community and Regional Food Planning* and 2012 *Planning for Food Access and Community-Based Food Systems: A National Scan and Evaluation of Local Comprehensive and Sustainability Plans* explain how city and regional planning experts can play an important role in bringing considerations of food and agriculture into comprehensive long-term plans, including land use, economic development, recreational and community facilities, and environmental protection: https://www.planning.org/policy/guides/adopted/food.htm, and https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/research/foodaccess/pdf/foodaccessreport.pdf.
- The Michigan Good Food Charter is an example of a statewide assessment and resulting set of recommendations to develop local food systems and includes consideration of comprehensive long-term planning in food system development: http://michiganfood.org/assets/goodfood/docs/MI%20Good%20Food%20Charter%20Final.pdf.

Farmland Protection Plans and Funding

Farmland protection plans preserve farmland by identifying the extent and type of agricultural activity in a county and making recommendations on how to protect working farmlands. They can be useful guides for local governments when considering future development, and elements of the plans may be referenced or incorporated directly into county and municipal comprehensive plans, as noted previously. As of 2016, 50 North Carolina counties had developed countywide farmland protection plans.[37]

Voluntary Agricultural District advisory boards, which are formed from the enactment of Voluntary Agricultural District ordinances, can take the lead in developing farmland protection plans and inform government officials and citizens of the benefits of farmland protection and local food systems. These boards can be responsible for implementing action items in a plan.

[37]List of counties with Farmland Protection Plans: http://www.ncadfp.org/FarmlandPreservation.htm. Linked list of county plans: http://www.ncadfp.org/vadprogram.htm.

For example, Durham County's Farmland Protection Advisory Board has co-sponsored workshops on local and direct marketing opportunities for farmers, grant and cost-share opportunities, and ways to lower tax rates through the present-use taxation program (discussed later in this document), and works closely with the Durham Soil & Water Conservation District and the Piedmont Conservation Council to pursue other market opportunities. Chatham County's plan addresses farmland preservation and agricultural economic development issues, and it includes recommendations for the county to promote farmer access to wholesale and retail markets and to create a program to retain and recruit farmers.

The Agricultural Development and Farmland Preservation Enabling Act was amended in 2005 to authorize the North Carolina Agricultural Development and Farmland Preservation Trust Fund (NCADFPTF).[38] This fund focuses on conservation, growth, and development of farm and forest land by encouraging the development of farmland protection plans, conservation easements, and agricultural development projects.[39] The act also authorizes the creation of voluntary and enhanced voluntary agricultural district programs (discussed below).

Family farms like this one - Ran-Lew Dairy in Snow Camp, NC - can be protected through many different preservation programs. Courtesy of Randy Lewis: http://ranlewdairymilkco.webstarts.com/.

The NCADFPTF provides grants to county governments and nonprofit groups to create farmland protection plans and develop other types of programs affecting land use for agriculture (such as Voluntary Agricultural Districts), grants to fund conservation easements, and grants for programs that develop economically viable agriculture operations such as infrastructure development and market promotion.[40] When receiving trust fund monies, counties that already have a farmland protection plan are given preference with regard to the amount of county funds they are required to match, depending on their development tier. In July2015, farmland preservation programs were awarded $2.13 million in recurring funds in the state appropriation budget[41].

[38] North Carolina Agricultural Development and Farmland Preservation Act (1985) Available at: http://www.ncga.state.nc.us/enactedlegislation/statutes/html/byarticle/chapter_106/article_61.html

[39] NC Agriculture Development and Farmland Preservation Trust Fund available at: http://www.ncadfp.org/FarmlandPreservation.htm

[40] Find the enabling legislation here: http://www.ncadfp.org/Legislation.htm, and information on the NC Agriculture Development and Farmland Preservation Trust Fund here: http://www.ncadfp.org/FarmlandPreservation.htm

[41] Department of Agriculture and Consumer Services, 2015-17 Certified Budget: https://ncosbm.s3.amazonaws.com/s3fs-public/documents/files/2015-17_Certified_100_Agriculture.pdf

Both county governments and non-profits can apply for NCADFPTF funds. For example, the non-profit Appalachian Sustainable Agriculture Project received funds in the 2010–2011 grant cycle to develop marketing opportunities for farmers. Orange County used NCADFPTF funds to support a shared-use, value-added processing facility. Cabarrus County used funds to build meat slaughter capacity and infrastructure to expand markets for area livestock producers.

Additional Resources for Farmland Protection Plans & Funding

- The North Carolina Agricultural Development and Farmland Preservation website provides information on developing farmland protection plans and on funding opportunities: http://www.ncadfp.org/FarmlandPreservation.htm.
- North Carolina State University provides models of farmland protection plans and other land use ordinances that can be downloaded and completed by counties: http://www.cals.ncsu.edu/wq/lpn/modelordinances.htm#plan.
- An example of a farmland preservation plan from Durham County: http://dconc.gov/home/showdocument?id=12211.

Present-Use Value Program

North Carolina's present-use value program (N.C.G.S. §§ 105-277.3 through 105-277.7) serves as one of the most important working-land preservation tools in North Carolina. Recent updates from the 2015 legislative session have changed some of the parameters of the program, which allows reduced county tax assessments for individually owned property used for agriculture, horticulture, or forestry.

To qualify, applicants must meet requirements for ownership, size, income, and sound management. Generally, farmland must have at least one tract of 10 acres in active production; horticultural land must have at least five acres in active production; and both must generate at least $1,000 in income each year and be under a sound management program. Forestland must be at least 20 acres in size and does not need to generate income but must be managed or harvested according to an approved forest management plan.[42]

There are many exceptions and custom approaches, however, so each landowner applying for the program should rely directly on the NC Department of Revenue's guidance on this topic. (See resources below.) Property accepted into this program is taxed at its "present-use value" for its farm, forestry, or horticultural use rather than the value of its "highest and best use," which in many areas would be for residential, retail, or other commercial uses.

The value as farmland is usually less than the market value of the property. The difference between the market value and the present-use value is deferred indefinitely until it no longer qualifies. When the land ceases to meet eligibility requirements, the difference between the market value and the present-use value for the prior three years and the current year must be repaid.

Farmers use of present value as a means to reduce tax rates can be compromised if municipalities enact zoning or other ordinances that reduce the farm's ability to meet the

[42] NC Present Use Value Guide, 2016. http://www.dor.state.nc.us/publications/puv_guide.pdf.

income eligibility requirement. If land use is not in accordance with present-use value requirements, the owner must pay the difference between the market value and the present-use value for the current and prior three years. Therefore, local governments should consider how their zoning ordinances and other land-use regulations impact farming, forestry, and horticultural activities and whether the ability to meet present-use value income, production, or other requirements might be affected by these regulations.

A conservation easement placed on land currently under present-use value that is annexed at a later time by a municipality may be able to continue to qualify for enrollment in a county's present-use value even if it is not able to fulfill income or production requirements. SL 20160-76 (H 533) exempts landowners from the 3-year tax rollback requirement if they sell PUV-eligible property to a land conservation organization or government agency.[43] This is a significant incentive and can be helpful to farmers in their long-term strategies for succession and estate planning.

Additional Resources for Present-Use Value Program

- The North Carolina Department of Revenue offers a Present-Use Value Program Guide (http://www.dor.state.nc.us/publications/puv_guide.pdf) and a sample application for the present-use value program (http://www.dornc.com/downloads/av5.pdf), and examples of qualifying properties are included in the PUV Guide.
- The Conservation Trust of NC created "A Short Guide to HB 533" which may be useful for an overview of the bill: http://www.ctnc.org/2016-session-of-the-general-assembly-summary/.

Voluntary Agricultural Districts (VAD)

Voluntary Agricultural District (VAD) programs are established at the county or municipal level to protect farmland from non-farm development and are authorized under the Agricultural Development and Farmland Preservation Enabling Act (N.C.G.S. §§ 106-735 through 106-749). As of 2016, agricultural districts (VADs and Enhanced VADs, discussed below) were present in all but 13 of North Carolina's 100 counties.[44] Although these programs have been implemented primarily by county governments, municipalities also have the authority under the act to implement their own programs as well. The increased pressure of housing developments in rural areas often prompts the creation of these district programs.

One of the major goals of a VAD program is to increase public awareness of what it means to live near a farm and to prevent nuisance complaints arising from the proximity of non-farm uses to farming activities and their associated noises, smells, and other agriculture-related characteristics. Farmers identify their membership in the program through mapping of enrolled farms in Geographic Information Systems (GIS) and by using signage that indicates to potential neighbors that the land is used as a farm and participates in a VAD program. This mapping can inform those within some distance of a VAD farm, typically ½ mile, of the potential for noise, odor, dusts, and slow-moving farm vehicles. See Appendix A for an example map of a VAD and

[43] North Carolina General Assembly, House Bill 533 (2015): http://www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl?Session=2015&BillID=H533
[44] Map of existing districts: http://ncadfp.org/documents/VADMap12-29-15.pdf

the properties that are included within the ½-mile distance for notification purposes. Local governments benefit from VAD programs as they provide a mechanism for planning for agricultural development while managing and reducing conflicts between farm and non-farm land uses.

VADs are created by ordinance at the municipal or county level, and these ordinances may be enacted differently from one jurisdiction to the next. In some programs, land must be enrolled, or qualify to be enrolled, in a county's present-use value program for it to be enrolled in a VAD program. Other programs across North Carolina may have differing enrollment requirements. For example, programs following the requirements of the Agricultural Development and Farmland Preservation Enabling Act (N.C.G.S. §§ 106-735 et seq.) will require that the land be real property that is engaged in agriculture as that word is defined in N.C.G.S. § 106-581.1.

Landowners must sign a revocable conservation agreement that limits the non-farm uses and development on the property for a period of 10 years, with the exception of the creation of not more than three lots that meet applicable county zoning and subdivision regulations. By written notice to the county, the landowner may revoke this conservation agreement with the revocation resulting in the loss of qualifying farm status. Restrictions on non-farm development and uses are outlined in the Agricultural Development and Farmland Preservation Enabling Act and the Conservation and Historic Preservation Agreements Act (N.C.G.S. §§ 121-34 through 121-42.). Additionally, highly erodible land must be managed in accordance with Soil Conservation Service defined erosion-control practices.

Landowners can benefit in a number of ways in exchange for voluntarily restricting non-farm development and uses on their property for 10 years. The incentives to join are determined locally and vary according to each local government's ordinance. Many ordinances provide for signage, mapping of enrolled farms in the GIS for the purpose of notifying new neighbors, waiver of water and sewer assessments for enrolled land, and public hearings in the event that enrolled land becomes subject to condemnation by state or local units of government.

Farmers, county commissioners, city councils, and land-use planners can form partnerships to create a VAD program, and these programs should be included in county and municipal farmland protection planning. The Agricultural Advisory Board created as part of the establishment of a VAD also acts as an advisor to the governing board of the county or city on projects, programs, and issues affecting the agricultural economy, including promotion of a sustainable and local food system. For example, Johnston County's Voluntary Agricultural District Advisory Board drafted an Agriculture Development Plan that identified growth in local food consumption and production for institutional sales as opportunities for county economic development and recommended improvements in access to local and regional markets at the wholesale and retail levels.[45]

Additional Resources for Voluntary Agricultural Districts

- The North Carolina Agricultural Development Program website provides information on the benefits and process to create a VAD, notices for upcoming workshops for

[45] http://www.johnstonnc.com/files/planning/Johnston%20Agricultural%20Development%20Plan.pdf

interested farmers and county officials, and links to county and municipal plans: http://www.ncadfp.org.

- The Department of Agricultural and Resource Economics at North Carolina State University provides a county model for a Voluntary Agricultural District Program Ordinance as well as a number of other model ordinances: http://www.cals.ncsu.edu/wq/lpn/modelordinances.htm.
- North Carolina Cooperative Extension provides a helpful guide specific to forest lands: *Protecting Working Forests with Voluntary Agricultural District Programs*: https://forestry.ces.ncsu.edu/forestry-management/.

Enhanced Voluntary Agricultural Districts (EVAD)

Both counties and municipalities may establish EVAD programs as authorized by the Agricultural Development and Farmland Preservation Enabling Act. Unlike the VAD program, EVAD conservation agreements are irrevocable for a period of 10 years and are automatically renewable for a three-year term unless notice of termination is given in a timely manner by either party as provided for in a county or municipality's EVAD ordinance. Like the VAD program, to participate in the EVAD program the land must be real property that is engaged in agriculture as that word is defined in N.C.G.S. § 106-581.1 and be enrolled (or qualify to be enrolled) in a county present-use value program (if the ordinance has the latter requirement).

The same benefits allowed under state law for enrollment in a VAD program are also provided to farm operations on land enrolled in an EVAD program. However, participants in an EVAD conservation agreement may obtain additional benefits not provided to VAD participants. These individuals may receive a higher percentage of cost-share funds for the benefit of the enrolled land under the Agriculture Cost Share Program. Another economic benefit is that farmers who participate can receive up to 25 percent of gross sales from the sale of non-farm products on the enrolled land and still have those sales qualify as a bona fide farm purpose that may be exempt from county zoning regulations. Finally, state departments, institutions, or agencies that award grants to farmers are encouraged to give priority consideration to individuals farming land subject to an EVAD agreement.

Like the VAD program, municipalities can create and administer their own VAD or EVAD programs or work with a county through an inter-local agreement to participate in a county program. Alternatively, municipalities can have the county administer a municipal VAD or EVAD program. One of the key requirements for participation in some VAD and EVAD programs is enrollment (or qualification for enrollment) in a county's present-use value program.

Local governments should consider whether their local regulations currently allow land to be used in a way that permits the land to qualify for enrollment in a present-use value program. Without enrollment in present-use value, landowners will not be able to participate in a VAD or EVAD program if this is a program requirement. Additionally, they will likely face higher property taxes, which may be one factor that forces farmers to sell their land for development.

Additional Resources for Enhanced Voluntary Agricultural Districts

- The resources listed in the previous section on VADs also contain information on EVADs.

Memorandum of Understanding for VADs and EVADs

In North Carolina, counties and municipalities can work together to administer farmland preservation programs. Under the Agricultural Development and Farmland Preservation Enabling Act, land cannot be included within a county VAD or EVAD program if it is contained within a municipal corporate boundary. Under this condition, cooperation is necessary between a county and a municipality for a farm to be able to participate in a county program, assuming that the municipality does not have its own VAD or EVAD program.

Often, the cooperation needed entails signing a formal Memorandum of Understanding (MOU) between the county and city governments so that farmland, forestland, and horticultural land contained within a municipality's corporate boundaries can be enrolled in a county VAD or EVAD program. Additionally, under this type of agreement, when other land is later annexed into a municipality, the land can continue to participate under the county's VAD or EVAD program.

Voluntary Agricultural Districts, conservation easements, and other farmland preservation tools protect important natural resources, preserve the heritage and culture of communities, and support farms and food businesses.
Photo courtesy of Microgreen King | Karen King.

Working together, a county and municipality can both economically benefit by preserving working farmlands and by supporting growers and activities on those lands. Landowners benefit through continued participation in a VAD or EVAD program even when their land becomes part of a municipality's corporate boundaries. To preemptively address nuisance complaints, municipalities can also use VAD and EVAD programs to notify new or prospective residents, property buyers, and developers about farming, forestry, and horticultural activities and the associated noise, smells, or other characteristics of those activities.

Additional Resources for City/County Memorandum of Understanding for VADs/EVADs

- The NC Cooperative Extension Service at NC State University's Department of Agricultural and Resource Economics provides an example of a model MOU on its website: http://www.cals.ncsu.edu/wq/lpn/modelordinances.htm#memorandum.
- Two examples of North Carolina municipalities that have signed MOUs with the counties in which they are located are linked below:
  Clayton: http://www.cals.ncsu.edu/wq/lpn/PDFOrdinances/JohnstonClaytonMemorandumScanned.pdf
  Broadway: http://www.cals.ncsu.edu/wq/lpn/PDFOrdinances/LeeBroadwayMemorandumScanned.pdf
- Wake County has a VAD program in partnership with its municipalities, governed by a 2002 MOU.[46] The MOU is in a 2016 update and should be released here when complete: http://www.wakegov.com/swcd/agriculture/Pages/voluntary.aspx.

[46] http://www.wakegov.com/swcd/agriculture/Documents/VOLUNTARYAGDISTORDINANCEMod2e9402.pdf

Conservation Easements

County governments, municipalities, and non-profit agencies can work together to obtain conservation easements—restrictions on rights to use or develop land in order to protect natural resources such as farmland, water, or wildlife. Easements can affect a number of land-use rights and may affect other rights such as water and mineral rights, but they can be structured to still allow farming, timbering, hunting, and other income-producing activities. The land remains in private ownership, and the easement can be tailored to meet the landowner's needs. The land encumbered by a conservation easement must be monitored by the easement holder, either a government agency or nonprofit such as a land trust, to ensure the terms of the easement are met. Land trusts are typically the holders of easements.

Conservation easements are usually perpetual, although others may be term easements covering a specific number of years. Term easements do not qualify for state or federal tax benefits, however. Landowners who donate a perpetual conservation easement may qualify for federal income tax deductions, and their heirs may benefit from reduced estate taxes on the land encumbered by the easement.

States may also offer conservation tax credits, although North Carolina's was repealed in the General Assembly in 2013. Additionally, local property taxes may be reduced if the highest and best-use value of the land is based on development and this use is limited by an easement. Under North Carolina law (N.C.G.S. § 121-40), land and improvements subject to an easement are assessed on the basis of their true value less any reduction in their value caused by an easement.

Please note that the NC Conservation Tax Credit program mentioned in previous versions of this guide was eliminated effective 12/31/13; it was repealed by S.L. 2013-316 (http://portal.ncdenr.org/web/ctc/home). If new legislation is proposed to reinstate this credit, they would be taken up by the General Assembly in future sessions, tracked here: http://www.ncleg.net/.

Additional Resources for Conservation Easements

- The North Carolina Association of Soil and Water Conservation Districts provides valuable resources to landowners. Some programs offer annual payments to farmers in exchange for placing land near critical watersheds in a conservation easement: www.ncaswcd.org.
- The North Carolina Land Trust's brochure for landowners offers information about regional land trusts operating in North Carolina: http://www.ctnc.org/wp-content/uploads/2014/12/CTR-019_VolConsBook_FINAL_2010_small.pdf.

Land Use and Zoning Ordinances

Ordinances—city and county laws—can impact the location of agricultural activities directly or indirectly by restricting the activities that can take place on designated lands. Counties and municipalities have multiple methods regulating land use that can provide flexibility for agricultural activities. This section addresses zoning and land use regulation strategies that can be examined for ways to further agricultural development.

Municipalities and Agriculture

Land-use and land-development ordinances are one means by which a local government carries out the policies set forth in comprehensive and community development plans. Whether for small-scale farms, larger farming operations, or community backyard gardens, ordinances must be amended to allow for these uses if they do not do so already.

A town may apply various development-related ordinances and programs both inside its town limits and in an area outside the town's primary corporate limit, referred to as its extraterritorial planning jurisdiction (ETJ). Such an area typically extends not more than one mile outside town limits, but in some cases it may extend up to three miles beyond a municipal boundary. Towns may also obtain authorization from the General Assembly to extend their ETJ even further than that allowed by statute.

A town may enforce its land subdivision ordinance, its zoning ordinance, its soil erosion and sedimentation control ordinance, its flood hazard protection ordinance, and the state building code in its ETJ. For example, if property was added to a city's ETJ, the land may become subject to municipal land-use ordinances that set standards for the location of farming activities, for buffers between farm and non-farm uses, and for the height and material of farm fences. However, if a parcel or portion of a parcel is being used for a bona fide farm purpose, as defined and described in N.C.G.S. § 153A-340(b)(2), it may be exempt from exercise of the municipality's ETJ and the enforcement of these ordinances on that property (see section below on Bona Fide Farms).

Municipalities still have the responsibility for regulating the construction of barns and other accessory agriculture structures in their ETJs and corporate boundaries. Municipalities are required under state law to enforce the State Building Code, but these structures may be exempt from county enforcement outside of an ETJ. Municipalities, however, can seek local legislation to allow a municipality to include in its zoning ordinance a provision allowing an accessory building used for a bona fide farm purpose in an ETJ to have the same exemption from the building code as it would have under county zoning. In 2011, for example, Session Law 2011-34 was enacted, giving all municipalities in Wake County the authority to provide in their zoning ordinances that an accessory building of a bona fide farm as defined in N.C.G.S. § 153A-340(b) has the same exemption from the building code as it would have under county zoning.

Under North Carolina law, municipalities may be limited in annexing land if that property is being used for a bona fide farm purpose. The statutory restrictions provided for in Session Law 2011-363 on municipal annexation and the exercise of extraterritorial jurisdiction do not apply to properties already within a town's corporate boundaries. Thus, properties in a town's corporate boundaries on which farming, forestry, or horticultural uses are occurring would be subject to regulation of those uses by that town.

Some municipalities in North Carolina have chosen to exempt bona fide farm or agricultural purposes that occur in their corporate boundaries from their zoning and unified development ordinances (UDO), and a 2013 legislative update eliminates the ability of municipalities to annex

a property certified as a bona fide farm without owner permission (see section below on Bona Fide Farm Exemptions).

Additionally, municipalities are authorized under N.C.G.S. § 160A-383.2 to amend ordinances applicable in their planning jurisdiction (corporate boundaries and ETJ) to provide flexibility for farming operations that are located within a city or county VAD or EVAD. This section states that "amendments to applicable ordinances may include provisions regarding on-farm sales, pick-your-own operations, road signs, agritourism, and other activities incident to farming." Farming for the purposes of this section is defined in N.C.G.S. § 106-581.1.

Municipal and County Zoning Ordinances

Zoning, one of the most commonly used land-use planning tools, divides a community into districts and determines the uses and structures allowed in those districts. Under North Carolina law, bona fide farm purposes are exempt from county (and some municipal) zoning ordinances. Municipalities can utilize zoning ordinances to regulate farm operations within their city limits and their ETJs. Sometimes cities integrate their zoning, subdivision, flood hazard protection, and other regulations into a single Unified Development Ordinance (UDO).

When local governments are utilizing a UDO, there are multiple ways to integrate protections and flexibility for agricultural or food-related purposes.

Municipalities can consider agricultural operations by either a district or use category when designing zoning ordinances.[47] "Agriculture districts" (such as Residential Agricultural-40) in zoning ordinances are different from voluntary agricultural districts, which are not authorized under a local government's planning and zoning authority. Agriculture districts are common in rural areas and along the edges of urban areas and allow for a wide range of agricultural activities, from raising crops and animals to food processing, distribution, and sales. For example, Orange County created a conditional zoning district for "Agricultural Support Enterprises," which provides some exemptions for agriculture-affiliated enterprises not covered by the traditional bona fide farm exemption at the state level.[48] (Note: Orange County is one of three counties with a county-funded agricultural economic developer on staff. Mike Ortosky is profiled in a case study associated with this report and his work, along with other ag EDOs, is explained in more detail in the Economic & Community Development section of this guide.)

Zoning for agricultural operations may also be characterized by use category. For example, zoning ordinances can address land use in terms of what types of activities are permitted "as of right" (a use category). Other uses may be deemed special or conditional uses and may be approved by a local government board if it concludes that the use will not detrimentally impact neighboring properties. For example, the Town of Matthews adopted Urban Farm definitions in its UDO that allow urban farms "as a use under prescribed conditions" in all zoning districts

[47] Mukherji, N and Morales, A. (March 2010). "Zoning for Urban Agriculture" *Zoning Practice.* Chicago: The American Planning Association Available at: https://urpl.wisc.edu/sites/urpl.wisc.edu/files/people/morales/Mukherji%20Morales%20ZP%20March%202010.pdf.
[48] Orange County Basic Zoning Program, 2015: http://www.orangecountync.gov/document_center/PlanningInspections/Basic_Zoning_Program.pdf.

except I-2 Heavy Industrial and AU Adult Uses. Farms must meet its definitions and requirements for accessory uses, structures, and other standards.[49]

Zoning ordinances typically include many requirements that affect agricultural operations. For example, requirements such as lot size, setbacks, parking, sidewalk access, lighting, and traffic could have a major impact on where within the city limits a community garden or other agricultural activity can be located. Ordinances also contain provisions regulating signs and setbacks that may impact agriculture operations. Sign provisions determine how, where, and when a farmer may advertise a particular product or the types of signs that may be used to promote the name of the farm. Setback provisions determine what portions of land must be set aside to meet buffering requirements and may reduce the amount of land available for pasturing of livestock or growing of crops.

Town councils need to look carefully at these types of land-use issues and consider how to provide for flexibility within their ordinances, so that municipalities can allow and support urban agricultural elements such as community gardens, backyard chickens, or local roadside farm stands. Municipalities can add farming, forestry, and horticulture as allowable land uses within zoning ordinances and plans.

However, for planning tools to be effective, all agricultural related terms, land uses, and specification of what uses are exempt need to be carefully defined in land-use plans and ordinances. Clear specifications in the original ordinance prevent confusion that may arise when it comes time to interpret whether or not a use is allowed under the ordinance. Counties should review their zoning ordinances and UDOs to ensure that their definitions and exemptions of bona fide farm purposes comply with statutory exemptions under county zoning while also allowing for activities supported and specified in their farmland protection and land-use plans.

County and municipal government agencies can review their current zoning ordinances for specific language that promotes local food systems. Some issues that may arise include whether zoned agricultural and rural residential districts permit farm and farm-related activities, and whether proposed farmers market sites are within neighborhood business districts. Local governments can also use zoning regulations to improve community access to fresh local foods for sale. For example, mixed-use zones can be designated to permit grocery stores to operate within residential neighborhoods, potentially giving residents easy access to a wider variety of fresh and healthy food.

Additional Resources for Land-Use and Zoning

- For an example of changes made to city zoning provisions designed to foster the growth of farm, forestry, and agricultural activities, see the following from the city of Apex: http://www.ces.ncsu.edu/nreos/forest/ordinance/ordinances.php?hidden1=municipalities&select1=Apex.
- For an example of Use Districts allowing urban farming as a conditional use, see the Town of Matthews' UDO:

[49] Town of Matthews Unified Development Ordinance Use Districts: http://www.matthewsnc.gov/files/documents/UDOChapter5UseDistricts1318022915051616PM.pdf.

http://www.matthewsnc.gov/files/documents/UDOChapter5UseDistricts1318022915051616PM.pdf.

- For an example of a district with agricultural support enterprises included as a conditional use, see Orange County's Basic Zoning Program: http://www.orangecountync.gov/document_center/PlanningInspections/Basic_Zoning_Program.pdf.

Bona Fide Farm Exemptions

North Carolina allows local governments to exempt bona fide farms from zoning ordinances through definitions and standards in NC G.S. 153A-340. Bona fide farm purposes are defined here as the production and activities relating to or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture.

Evidence of bona fide farm status can be presented in one or more of four ways: a farm sales tax exemption certificate issued by the N.C. Department of Revenue; a copy of the property tax listing demonstrating eligibility for the Present-Use Value Program (discussed earlier in this section); a copy of Schedule F from the most recent year's federal tax return; or a forest management plan. These exclude farms subject to a conservation agreement (information for those farms is available in G.S. 106-743.2-4).[50]

In September 2013, this legislation was updated to expand the exemption from county zoning, eliminate the ability of municipalities to enforce zoning on bona fide farms in their extraterritorial jurisdictions (ETJs), and prevent municipalities from annexing such farms without owner consent. The exempt activities expansion included provisions for activity associated with a farm and "any other farm owned or leased…by the bona fide farm operator, no matter where located." This allows energy production and processing facilities that serve multiple farm tracts to be considered exempt from zoning.

The update also included rules to exempt grain warehouses and storage facilities from zoning by counties and municipalities in ETJ districts, and directed the NC Department of Transportation to adopt rules for vegetation pruning that emphasized agritourism activity viewing along federal and state highways.

Additional Resources for Bona Fide Farm Exemptions

- More information on the bona fide farm exemptions is available from the UNC School of Government's Coates Canons blog: http://canons.sog.unc.edu/local-governments-and-the-special-status-of-bona-fide-farms/.
- The statute governing bona fide farm exemptions is available at http://www.ncga.state.nc.us/Sessions/2011/Bills/House/PDF/H168v6.pdf.

[50] S.L. 2011-363 (H168): http://www.ncga.state.nc.us/Sessions/2011/Bills/House/PDF/H168v6.pdf.

General Ordinances

Local governments also need to examine the impact on agriculture from general ordinances, such as animal control, nuisance, and landscaping ordinances. These ordinances contain provisions separate from those enacted under a local government's planning and zoning authority and will not be contained within either a zoning or UDO, but instead are listed in separate sections of the local government's code of ordinances.

All local ordinances should be enacted and enforced together in a consistent manner to allow for desired rural or urban agricultural activities. Where a zoning ordinance allows for livestock in one or more districts, the animal control ordinance for a county or municipality needs to be written so that the care and keeping of livestock is allowed within a local government's boundaries and planning jurisdiction.

Additionally, nuisance and noxious weed ordinances that regulate vegetation height should be written to allow for crops in gardens or on farms, which will grow beyond vegetation height restrictions that are enacted to control overgrown, weedy vegetation on unmaintained lots. Some gardeners within city limits may run the risk of potential fines and neighborhood discord, if their gardens do not meet vegetation height restrictions.

Additional Resources for General Ordinances

- The following websites provide general information about local governments and ordinances:
- UNC-CH School of Government (http://www.sog.unc.edu)
- North Carolina League of Municipalities (http://www.nclm.org)
- North Carolina Association of County Commissioners (http://www.ncacc.org/)
- American Planning Association – North Carolina Chapter (http://www.nc-apa.org/)
- North Carolina Ordinances can be located using the following companies: Municipal Code Corporation, (www.municode.com), American Legal Publishing Corporation (www.amlegal.com), and General Code (www.generalcode.com).

Trends & Emerging Issues in Local Food System Development

There are unique approaches to planning for agricultural development and food entrepreneurship occurring all across North Carolina. Below are some emerging trends and strategies from the national level that are being explored in North Carolina. (For information about mobile markets and farmers markets, see the expanded section in the Economic Development portion of this guide.)

Additionally, the NC Growing Together Project has prepared case studies from every region of North Carolina that showcase some of these trends; visit www.localfoodeconomies.org for more information.

Conservation Development & Agrihoods

Conservation development strategies have been increasingly popular over the last four decades. The approach focuses on the protection of natural resources while also creating economic benefits, and includes a wide range of projects from rural ranches to suburban conservation subdivisions to large master-planned communities. As of 2016, conservation development accounted for nearly a quarter of private land conservation in the U.S.[51]

Land conservation is a continuously challenging field, working within larger trends of land development, climate issues, and financing methods. Conservation development incorporates the need for residential housing and development with an emphasis on stewardship in the design, construction, and maintenance of residential facilities. Some conservation development projects protect a percentage of the property through conservation easements obtained by the developer-owner of the property; others offer a way for farmers to protect a majority of their farmland while allowing development in a concentrated area (like this example from the Hudson Valley, where both farmland and housing are at a premium: http://www.nytimes.com/2016/06/02/nyregion/real-estate-boom-pinches-a-produce-supply-in-the-hudson-valley.html?WT.mc_id=SmartBriefs-Newsletter&WT.mc_ev=click&ad-keywords=smartbriefsnl).

Another increasingly popular strategy for conservation development is the design and construction of "agrihoods," developments centered around a common resource – instead of golf courses or swimming pools, residents build on sites located around agricultural uses like farms and gardens. This addresses a common desire for potential buyers to have views and open space, without the large capital investments needed in golf courses or other amenities, and assists developers both in selling lots and in obtaining tax credits and protections based on their use of conservation easements.

Some developments hire professionals to manage the farming activities, delivering produce boxes to residents each week, while others offer allotments of farm or garden space to owners.[52] One example that was recently approved in Durham County is Wetrock Farm (http://www.wetrockfarm.com/). The project would place roughly half the 287-acre development property into conservation as a working farm, while including fresh produce as part of the homeowners' association dues.[53] Fundraising continues at the time of this publication.

Counties and municipalities have the regulatory authority to utilize specific guidelines and incentives to encourage conservation development in local land use regulations in many ways, such as density bonuses, conservation easement assistance in partnership with local land trusts, and assistance with ecological site mapping and protection plans.[54] However, the use of zoning as an incentive exclusively for farms is rare in the state, although flexible development options

[51] Colorado State University, 2016. Conservation Development. http://cd.colostate.edu/conservation-development-overview.
[52] Locke, M. "Agrihoods Take Root." Associated Press, 2016. http://bigstory.ap.org/article/741be41882804a99bf482ab0a61d8bee/agrihoods-take-root-housing-trend-rooted-agriculture.
[53] Raleigh News & Observer, 2016-06-25: "Proposed subdivision in Durham would include working farm." http://www.newsobserver.com/news/business/article82829367.html.
[54] Reed, S.E. et al. 2014. Guidelines and incentives for conservation development in local land use regulations. Conservation Biology 28: 258-268. http://onlinelibrary.wiley.com/doi/10.1111/cobi.12136/abstract.

have been adopted by some counties in which developers can decrease lot sizes and get "bonus units" for additional preserved options. The option is rarely used due to a lack of incentives for developers to take advantage of those programs.[55] For examples, see Durham County's Article 6: District Intensity Standards; Franklin County's Flexible Development standards; and Orange County's Article 7: Subdivisions – Cluster Development – Payments in Lieu of Dedication standards (full hyperlinks in the Additional Resources section below).[56]

- Colorado State University tracks Conservation Development projects across the Western U.S.: http://cd.colostate.edu/conservation-development-overview.
- Guidelines and incentives for conservation development are summarized in this research: http://onlinelibrary.wiley.com/doi/10.1111/cobi.12136/abstract.
- For a listing of agrihood projects in the U.S. and additional information on agrihood developments, visit the Urban Land Institute: http://urbanland.uli.org/development-business/growing-sociability-integrating-communal-spaces-development/.
- The foundational text for rural land use planners, published by the American Planning Association, is Randall Arendt's *Rural by Design* (2nd ed.). The book is written for both lay readers and planners and is often used in working with citizens and elected officials: https://www.planning.org/publications/book/9026707/.
- The Green Growth Toolbox, a program of the NCWRC, provides extensive resources geared towards habitat conservation that can also be useful in land use and planning, including project layouts and samples. The NCWRC also hosts regular workshops for local government administrators about conservation programs and tools: http://www.ncwildlife.org/Conserving/Programs/Green-Growth-Toolbox.

Food Trucks

Food trucks at farmers markets and special events have become a common issue for planners in the past ten years. Photo courtesy of JJ Richardson, CEFS.

One of the most common requests among planners is information about how to properly zone areas for food trucks and other niche food businesses, like mobile markets, CSA distribution sites, cooking or gardening classes, and other activities not easily defined in existing use categories.

Many North Carolina counties and municipalities have addressed these issues through zoning or policy changes, particularly to allow mobile markets and food trucks to locate in commercial or industrial areas and to allow permits for multiple units in a given location (such as food truck "rodeos" or "rallies," or defined "food truck lots" that target employees of a specific industry or commercial district).

[55] Personal communication. Belk, Donald, in response to Emily Edmonds, August 14, 2016.
[56] Durham County: https://durhamnc.gov/DocumentCenter/Home/View/7524; Orange County: http://www.orangecountync.gov/departments/planning_and_inspections/ordinances.php; Franklin County: http://www.franklincountync.us/services/planning-and-inspections/current-planning-2/unified-development-ordinance.

For more information, see the APA's guidance on food trucks: https://www.planning.org/media/document/9026950/.

Beehives

Another common issue is the maintenance and use of beehives in urban districts. The 2016 Local Government Regulatory Reform Bill (G.S. 106-645) states that county ordinances cannot prohibit possession of five or fewer hives, although some municipal regulation of hives may be allowed (but up to five hives within the planning jurisdiction must be allowed). Ordinances may regulate setbacks, anchors, or location, but may not prohibit hives from being installed altogether.[57]

Public Land for Community Gardens & Incubator Kitchens

Many states, counties, and towns are providing public land for food projects like community gardens and incubator commercial kitchens. Often, land and facilities are already in public use, and these are added uses to existing space or facilities (such as those at recreation centers, libraries, hospitals or health clinics, education boards, schools, government housing projects, and other locations).[58] In the City of Greensboro, a food access report led the city to explore utilizing its network of recreation centers throughout the city to host incubator kitchens on-site, providing quick and easy access to food and food entrepreneurship activities in existing facilities.[59]

For more resources on utilizing public land, see the "Vacant Land for Food System Development" subsection in the "Economic and Community Development" section of this guide.

Military Food Systems Planning Initiatives

Fields are ready for planting at the Onslow County Incubator Farm, a project co-sponsored by the U.S. Marine Corps Base at Camp Lejeune. The Base and County Extension worked together to build a program for transitioning veterans. Photo courtesy of Rebecca Dunning, CEFS.

Military bases in all branches of the U.S. Department of Defense have begun to consider land protection and conservation efforts in base regions over the past ten years. Base leaders are often concerned about encroachment near the bases, which can inhibit training programs, affect housing needs for base families, and impact transportation, infrastructure, and land use in the area.

Many bases have begun to work with local and regional planners to identify strategies for protecting land around bases and beneath flight or training areas. This can often mean military support for state and local programs that protect farmland in permanent or semi-permanent conservation easements. As part of the

[57] http://www.ncleg.net/Sessions/2015/Bills/House/PDF/H44v5.pdf
[58] Change Lab Solutions, 2015. A Guide to Growing Food on Public Land. http://www.changelabsolutions.org/publications/dig-eat-be-healthy.
[59] City of Greensboro, 2015. http://www.greensboro-nc.gov/modules/showdocument.aspx?documentid=28019.

Department of Defense's Sentinel Landscapes initiative, bases in North Carolina have begun addressing these issues: Camp Lejeune (U.S. Marine Corps), Jacksonville; Ft. Bragg (U.S. Army), Fayetteville; and some regional U.S. Air Force facilities. Camp Lejeune has also supported farmers markets on the base for active personnel and other community initiatives such as an incubator farm to encourage more market channel availability for farmers in their encroachment region.[60]

Planning for food systems in conjunction with military entities aligns two of a state's larger industries – military and agricultural – and emphasizes their common goals of land protection and conservation. A number of market-based opportunities for land preservation and farm market channel expansion are available as tools to encourage food system expansion in military zones.

- Eastern North Carolina is now a designated zone for the Sentinel Landscapes program (effective 2016). For more information on this and other nationally designated sites, as well as best practices for partnerships between regional, local, and military planners, visit http://sentinellandscapes.org/.
- American Planning Association has several training webinars on military encroachment prevention planning: https://www.planning.org/events/event/4169642/.
- National Governors' Association Center for Best Practices offers planning strategies for working with military encroachment prevention (2015): http://www.nga.org/files/live/sites/NGA/files/pdf/0602DEVELOPMILITARY.PDF.
- The Association of Defense Communities offers a central clearinghouse for information about military and community interactions (2016): http://www.defensecommunities.org/.

[60] See NC Growth, Kenan Institute, Camp Lejeune Regional Aggregation Center (2015): http://www.ncgrowth.unc.edu/index.php/food-fuel-4-forces-regional-food-hub/.

Economic & Community Development for Local Food Economies

Incorporating Local Food Systems into Economic & Community Development Strategies

Local economies can benefit in a number of ways from the presence of small agriculture enterprises and food entrepreneurship in their communities. Local governments, regional councils, and planners and economic developers have a unique opportunity to support recruitment and expansion efforts in this sector, increasing job opportunities, keeping more money circulating within local communities, and enhancing the ability of residents to remain in rural areas.

Recent work in the area of local food system development measures the benefits of this work using a Return on Investment (ROI) perspective which includes not only economic benefits, but also social and environmental benefits connected to quality of life. This work takes place at the intersection of planning and economic development approaches to building stronger communities. The City of Raleigh's planning and economic development staff, for example, jointly use an ROI-based development strategy that takes into account the economic impacts of planning and development decisions.[61] Minnesota GreenStep Cities provides an ROI guide that accounts for urban investments in green space, gardens, and urban farms.[62]

For the local food system to flourish, much of the food-processing infrastructure for small and medium-sized farms may need to be developed. Farmers need centers to aggregate produce, commercial kitchens to create value-added products (such as jams or sauces), slaughter facilities, and value-added meat-processing facilities. Producers also need access to a variety of markets and viable farmland, and a food system that connects them into the existing networks for transportation, distribution, storage, and other critical needs.

When planning new initiatives to promote economic development, local governments should consider their agricultural assets and what kinds of consumer demand and available supply are present within their region. There are a number of ways for counties and towns to support the development of local food systems, many of which are outlined below. This section of the guide

[61] Planet Izen, 2016. "It's A Match: Planning and Economic Development." http://www.planetizen.com/node/60749.
[62] Minnesota GreenStep Cities, 2015: http://greenstep.pca.state.mn.us/viewFile.cfm?id=1952.

also includes information on utilizing local foods to attract, retain, and expand businesses of all sizes and industries.

Innovation in Planning and Economic Development

Integrating food systems and planning can provide innovative opportunities at the leading edge of the planning sector, especially in regionalism, multi-disciplinary planning, and applied technology. Regionalism, an economic development and planning approach that considers needs across a defined geographic area, includes multiple units of local government and allows for long-term market-based partnerships as well as coordinated strategies for development.[63]

By its nature, agriculture is a regional enterprise, and offers communities a way to work together on important development issues. Food systems also bring together a diverse group of stakeholders from multiple industries and motivations (see Collaborating for Growth section of this document). This allows planners to utilize multiple approaches, particularly from economic development, health, and design partners, to solve complex problems that affect every population within a community. Food systems planning and development is at the leading edge of innovation in public service, offering multiple ways for unique solutions to be implemented.

SO, WHAT'S LOCAL?

There is no fixed definition of "local."
Localities and regions are encouraged to create definitions of local that account for regional geographic, demographic, and land influences.
Custom definitions allow for effective place-based planning & development solutions.

Calculating Economic Impact

Central to the argument that investment in a local food system will generate economic dividends for the local economy is the idea that food dollars spent locally will experience a multiplier effect as the local farmers, in turn, purchase intermediate inputs, labor, and capital from within the localized economy (O'Hara, 2013).[64] Though this theory is fundamental to the ongoing conversation among economic developers and local food advocates, available findings are difficult to generalize across a diverse set of communities and economies.

Studies that find positive economic impacts of local food systems planning and improvement are place-specific and operate on the basis of layered assumptions within a very specific input-output model or REMI analysis (Ahearn, Brown, Goetz, & Liang, 2014; Conner, 2008; O'Hara, 2013)[65]. As O'Hara asserted in a previous review of the types of studies conducted on economic impacts of local food systems, the existing body of work offers insight but requires further

[63] Association of Wisconsin Regional Councils, 2014. http://www.awrpc.org/Regionalism.html.
[64] O'Hara, J.K., & Pirog, R. (2013). Economic impacts of local food systems: Future research priorities. *Journal of Agriculture, Food Systems, and Community Development,* 3(4), 35-42.
[65] Ahearn, M., Brown, J., Goetz, S., & Liang, K. (2014). Linkages between community focused agriculture, farm sales, and regional growth. *Economic Development Quarterly.*

development of data collection tools, research over expanded geographies, and quantification of local food systems economic indicators that extend beyond simplistic measurement of jobs (O'Hara, 2013).

In May 2016, the U.S. Department of Agriculture released a toolkit designed to help states and regions examine the economic impact of local food systems projects.[66] The toolkit provides calculation tools for judging economic impact on a potential or completed project. It requires refinement of large datasets, such as those available through IMPLAN, for a region or state's industry data. One such example was recently performed for four counties in California. The study found that the regional output multiplier for farms selling product direct-to-consumers was 1.86, compared to 1.42 for the region's producers who were not involved in direct marketing. This means that the direct marketers generate $0.44 additional output within the Sacramento Region for every dollar of production, when compared with producers not engaged in direct marketing. The greater economic impact of direct market producers is primarily attributable to the much larger percentage of their inputs being purchased within the region (89 percent versus 45 percent).[67]

Calculating economic impact is complicated by the fact that the terms "local food" and "local food systems" do not have standard definitions. As evidenced by the food cluster work in Vermont (Rosenfeld, 2010), the evaluation of an existing food system must first overcome the challenge of a classification system that does not fully capture food system work.[68] For example, value-added production, agritourism, food in arts and culture, and agricultural operations linked to clothing and energy all required creative accommodation by the Vermont researchers when they were developing industry profiles.

The toolkit is useful for strategic and long-term evaluation of projects, but requires an investment in data tools and the resources needed to refine that data. On the website, you'll find dozens of tools and resources on the topic. It is recommended that local and regional governments consider partnering with university researchers who can assist in the data collection and analysis (and may already own licenses for the large datasets and computation tools needed to successfully utilize the toolkit).

Visit http://www.localfoodeconomics.com/ for more information on the USDA toolkit and contact their project team for additional information and advice.

North Carolina's Food Manufacturing for Economic Development

North Carolina's Food Manufacturing Task Force was established by the Governor in 2015, and released a report in April 2016 on how to recruit, attract, retain, and expand food manufacturers as a key component of the statewide economic development strategy. Food manufacturing is now fully supported as an economic development strategy by the Economic Development Partnership of NC, the private-public partnership that manages economic development on

[66] USDA 2016. Economic Impact of Local Foods Toolkit: www.localfoodeconomies.com.

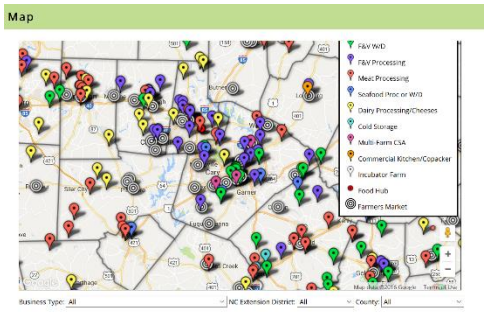
[67] Hardesty, Shermain, et al. 2016. "Economic Impact of Local Food Producers in the San Francisco Region." University of California – Davis. http://sfp.ucdavis.edu/files/238053.pdf

[68] Rosenfeld, S. (2010). Sustainable Food Systems Cluster, Vermont Style. *European Planning Studies,* 18:11, 1897-1908.

behalf of the state. See the EDP's strategy for recruitment of food manufacturing here: https://edpnc.com/industries/food-processing-manufacturing/. The Final Report of the Governor's Food Manufacturing Task Force can be downloaded here: http://www.ncleg.net/documentsites/committees/BCCI-78/2015-2016%20Meeting%20Documents/3%20-%20March%2010,%202016/R.%20Linton%20FoodMfg%20Report.pdf.

Strategies for the Development of Local Food Economies

Analyzing Local Food Supply Chain Infrastructure



The NC Local Food Supply Chain Infrastructure Map and Inventory can be accessed at https://www.cefs.ncsu.edu/statewide-infrastructure-map.html.

The first step to improvements in local food supply chain infrastructure is assessing and understanding the strengths and weaknesses in your region. To support this work, the NC Growing Together Project has compiled a supply chain infrastructure map for all 100 North Carolina counties, identifying intermediary categories such as processing, distribution, cold storage, and aggregation.

The map is based on industry data ground-truthed to each county where possible; however, ongoing local knowledge and participation is needed to continually verify and add to the data. The data is searchable by county and by category, and can be downloaded in an Excel spreadsheet for analysis or use with most commercial mapping software.[69]

Expanding Local Food System Infrastructure

A food supply chain encompasses all the organizations and activities associated with the flow of goods from raw product form through processing and transportation to the end user. A local food supply chain implies that the production of the raw goods, processing, transportation, and consumption take place within the same geography. The extent of this geography depends on the person and context, but is often a county or set of counties.[70]

Development of a thriving local food economy very often depends on the extent to which the pieces of the food supply chain—the farms, the processors, the distributors, the retail locations—are already in place. Developing the local food supply chain means identifying these absent entities or tenuous linkages and creating or strengthening them; with local investment, policy change, and building local food demand through marketing. Providing opportunities for food business networking is also an effective way of building supply chains, and may lead to

[69] Center for Environmental Farming Systems. (2013). NC Local Food Infrastructure Inventory. Retrieved 2016-07-25 from http://www.cefs.ncsu.edu/statewide-infrastructure-map.html.
[70] Other attributes are associated with "local," as discussed earlier in this publication, such as family-owned, sustainably produced, etc.

collaborative supply chains, with businesses along the chain communicating freely for the competitiveness and profitability of the chain.

Government and non-profit entities may play a more active role in food supply chain development, by creating social enterprises such as food hubs[71] that have both business and public good objectives. This local food "value chain" work refers to collaboration between businesses and the public-sector partners to create food supply chains that generate both economic value and social benefits such as greater food access. Businesses across the chain, with support from public-sector partners, intentionally work together to build both economic value and social value.[72]

Storage and transportation facilities are two of the most critical pieces of the local food supply chain. Photo courtesy of Microgreen King Farms | Karen King.

Local governments across North Carolina have supported a number of innovative solutions to strengthen local food supply chains. For some counties and regions, food hubs (aggregation and distribution centers which collect product from multiple producers and connect producers to buyers) have met those needs. These social enterprises can provide valuable lessons learned for others interested in food hub development. Some existing NC hubs include TRACTOR, the Toe River Aggregation Center in Yancey County; Southeastern North Carolina Foods Processing and Distribution Center in Pender County; Bull City Cool in Durham County; and Eastern Carolina Organics in Chatham County. TRACTOR, for example, has explored the business model for aggregation of small producers into wholesale markets for several years, and is now considering additional market channels, such as CSAs (community supported agriculture), to increase revenue.

In many cases, these existing projects conducted feasibility studies, and may be willing to share these studies with others who are interested in similar projects. For example, the feasibility study for Bull City Cool, a shared processing and storage hub in Durham, was completed in 2014.[73] Richmond and Moore counties are in the planning stages for a shared processing and storage facility in the Sandhills region, called the Sandhills AgInnovation Center.[74] Funded in part by a $475,000 grant award from the Golden LEAF Foundation, this facility capitalizes on an existing farmer cooperative and market demand generated by the Sandhills Farm2Table Initiative.[75] .

[71] USDA Rural Development, Service Report 73, 2011: www.rd.usda.gov/files/sr73.pdf.
[72] https://www.ams.usda.gov/services/local-regional/food-value-chain
[73] http://communityfoodlab.org/projects/2013/6/30/902-food-hub-development-study
[74] Moore County Pilot, August 31, 2016: http://www.thepilot.com/business/food-hub-creates-opportunity-for-local-farm-products/article_00457e6c-2d83-11e6-a6bb-dbe270386c07.html.
[75] http://www.sandhillsfarm2table.com/home.php

Local government support for supply chain expansion is not limited to food hubs. Several North Carolina governments have partnered with other organizations to obtain funding for processing facilities. Cabarrus County procured funds to help defray the expansion of an existing meat processing business so that cattle producers had an option to market their products locally. Prior to this, farmers typically sold all their cattle to buyers outside the state and region due to the lack of local processing infrastructure.

Commercial kitchens and small processing facilities such as Blue Ridge Food Ventures in Buncombe County; Piedmont Food and Agricultural Processing Center and one of its anchor tenants, Seal the Seasons, in Orange County; and Working Landscapes in Warren County provide models for how to utilize infrastructure, equipment, and technical assistance to expand market access for local agricultural and food product businesses. These newer facilities join established co-packers like D'vine Foods in Elizabethtown and Bobbee's Bottling in Louisburg, which manufacture products such as juices and jams from local produce to the specifications of the grower.

TRACTOR, the Toe River Aggregation Center, collects product from a number of small producers in Yancey and surrounding counties to sell at large volumes to wholesale distributors: www.tractorfoodandfarms.com. Photo courtesy of Angelo Gianni | FusionDigitalMedia.us.

In addition, collaborations across industries can provide successful farm and food business support; in Southwestern NC, Southwestern Community College's Small Business Center partnered with the regional Cooperative Extension agencies to offer customized food and farm business workshops through the Appalachian Farm School.[76] Starting a food business requires customized training and technical assistance that small business development centers can support with tailored services. There are a number of training programs across the state, often called "farm schools" or "ag entrepreneurship programs," that blend the expertise of the NC Cooperative Extension Service with the Small Business Center's knowledge of business planning and financial operations.

Still other regional entities have partnered to create branded marketing efforts that support local farms, including Piedmont Grown and Appalachian Grown.[77] In Haywood County, a part-time position was created within the Office of Economic Development to assist in marketing county-produced products, and these efforts resulted in a successful Buy Haywood marketing strategy that included branding, farm tours, local food maps, and tourism initiatives.[78] Henderson County's Agricultural Economic Development Director launched a marketing program called Southern Mountain Fresh. For all of these marketing campaigns, CEFS hosts a supportive,

[76] Appalachian Farm School, 2015-2017: www.southwesterncc.edu/sbc.
[77] www.piedmontgrown.org; www.asapconnections.org/appalachiangrown.html
[78] www.buyhaywood.org

state-level strategy called NC 10%, which aims to help smaller regions and counties brand their products and provides marketing and educational resources on local procurement.[79]

Creating Agricultural Economic Development Programs and Positions

Local governments engage in agricultural economic development by creating a specific strategy or program through their comprehensive plans. The strategy and program can be driven by existing staff, such as the current economic development officer or the soil and water conservation district director, or it can be managed by a new staff position (typically called an agricultural economic developer or agricultural economic development officer). Programs can also be managed regionally by a council of government through new or existing staff members.

Dedicated agriculture economic development positions provide the skilled staff necessary to push a strategy forward. Agricultural economic development addresses the creation, retention, expansion, and recruitment of agricultural and food-related businesses in a town, county, or region. Often, AEDs work closely with farmland preservation planning and traditional economic development offices, and the impetus for those positions comes from a variety of initiatives, such as land use strategies and community needs.

Agricultural economic developers have a variety of duties that depend on the geography, climate, demographics, markets, and industries within their county, and work across many areas of agriculture and food entrepreneurship. For example, Henderson County created the Agricultural Economic Development office within its 2020 Comprehensive Plan; their newly-created agricultural economic developer position focuses specifically on the apple industry, their largest crop and one for which the county is nationally renowned. In Polk County, the first in the state to hire an agricultural economic developer, the desire for increased farmland protection arose from public discussions about development and the management of natural resources. In Orange County, the position was funded after a specific project had been undertaken (in this case, a processing facility that required management and oversight). In Durham County, local leaders tied soil and water conservation to farmland preservation and economic development by creating a shared position to manage watershed conservation and agribusiness. [80]

Local governments in NC have utilized a number of strategies and programs to create authority for programs and positions associated with agricultural economic development. Some of these include:

- A Farmland Protection Plan and its associated advisory board;
- An ag-specific goal in the Comprehensive or Strategic Plan;
- A specific policy statement in long-range planning documents, such as inclusion of ag-specific regulations in the UDO (Unified Development Ordinance) or individual ordinances;
- The establishment of a department or division with this focus and allotted budget funds;

[79] www.nc10percent.org

[80] Case studies on each of North Carolina's agricultural economic development positions, with additional fact sheets and information, can be found at https://cefs.ncsu.edu/food-system-initiatives/local-food-economies/.

- The incorporation of an AED into the economic development strategy or plan; and/or
- The establishment of other cross-sector partnerships, such as public-private partnerships or nonprofits, focused on this work – typically through an MOU (Memorandum of Understanding) with other partners and committed funding.

Leading by Example: Local Food Procurement for Local Governments

Local governments can adopt procurement policies that favor the purchase of local foods. For example, counties can require a percentage of local purchases at county events or through foodservice contracts in county institutions like clinics, jails, or schools. Even without formal passage of such policies, local government can signal support for and help bring awareness about local agriculture by adopting resolutions that promote locally produced foods.

For example, a number of counties in North Carolina have adopted resolutions supporting the 10% Campaign, a project led by CEFS and the NC Cooperative Extension Service to encourage individuals, businesses, and communities to commit 10% of their food dollars to support local food producers. A 10% Campaign resolution template appears in Appendix C.

Some counties have also created their own local food purchasing policies. For example, Cabarrus County has a Local Food Procurement Policy that reads: "It is the policy of Cabarrus County to promote economic vitality, support the health and safety of its employees and citizens, and to preserve and protect our natural resources so that future generations will have an opportunity to thrive. The Local Food Purchasing Policy is intended to grow our local food economy, and to make fresher, more nutritious and better tasting food available at all County events that are catered. Policy: Cabarrus County Government Employees shall locally source at least 10% of all food served at county catered events and small department-sponsored meetings from food producers within North Carolina."[81]

For public school districts specifically, the North Carolina General Assembly recently amended the school procurement bill to allow schools to implement policies and procedures that "maximize, to the extent practicable, purchases of food grown or raised in North Carolina." This means that schools, which typically are restricted to lowest-bid purchases made with state and federal funds, now have the flexibility to set preferences in their contracting process to allow for local food procurement when possible.[82]

There are resources at the state and national level for local governments interested in setting procurement policies that set preference for local purchasing, for everything from public school districts and detention centers to county catering events and senior center meals. The UNC School of Government and the Kenan Institute both provide a number of resources for local food development for towns and counties.[83] ≈

[81] Cabarrus County: https://www.cabarruscounty.us/government/departments/sustainability/local%20food/Pages/Local-Food-Purchasing-Policy.aspx.
[82] Senate Bill 770, NC General Assembly. 2016. Section 8, part 2 of Article 17. 115C-264.4. www.ncga.state.nc.us/Sessions/2015/Bills/Senate/PDF/S770v8.pdf.
[83] www.sog.unc.edu/search/#!/local%20food; www.ncgrowth.com

Nationally, the SUNY-Buffalo Department of Urban and Regional Planning maintains a database of policies from around the country that showcase local food systems at the municipal, county, and regional levels.[84] Change Lab Solutions provides a guide to considerations for local governments considering local food procurement policies, along with a guide to potential legal issues with such policies.[85] A useful case study is available from the Kentucky State Parks Local Food Purchasing department, which follows a state agency through the processes and changes required to adopt local food sourcing as a procurement policy within a larger government bidding process.[86]

Additional Resources for Economic & Community Development Strategies

- The Center for Environmental Farming Systems provides resources and direct assistance for local communities to build their food systems: http://www.cefs.ncsu.edu/whatwedo/foodsystems/localfoodtoolkit.html.
- The Carolina Farm Stewardship Association offers numerous tools to help growers and communities develop local and sustainable food economies, including a guide on federal and state laws and regulations that govern the production and sale of local foods in the state: http://www.carolinafarmstewards.org/north-carolina-reg-guide/.
- The Appalachian Sustainable Agriculture Project offers a resource on farming, tourism, and economic development: *Farm Promotion & Support - Ideas and Tools for Economic Development and Tourism Development Authorities*, http://www.asapconnections.org/farmpromotionandsupport.pdf.
- The NC Division of Public Health and the UNC Center for Health Promotion and Disease Prevention along with other partners involved in the Eat Smart Move More initiative offer a variety of resources and tools that can help communities focus on health promoting foods: http://www.eatsmartmovemorenc.com/index.html.
- Links to four county offices in NC with agricultural economic development staff:
    - Orange County: http://growinorangenc.com/
    - Polk County: http://www.polkcountyfarms.org/millspringagcenter.html
    - Henderson County: http://www.agrihc.org/
    - Durham County: http://dconc.gov/government/departments-f-z/soil-water-conservation-district/staff

Local food economies as a recruitment tool

Although there is limited economic analysis on the impact of local agriculture on local economies (see the Calculating Economic Impact section of this guide), we do know that local food economies are becoming more and more important as a recruitment tool.[87] Companies consider multiple factors during site selection, including data about infrastructure, land, tax rates, and workforce availability. But many firms – particularly those who will be relocating employees to

[84] Growing Food Connections (2016). http://.growingfoodconnections.org/tools-resources/policy-database/general-search-policy-database.
[85] http://www.changelabsolutions.org/publications/local-food-local-government; http://www.changelabsolutions.org/publications/buy-healthy-buy-local
[86] Perry, R. (2011). Agricultural Development Is Economic Development: Kentucky State Parks Local Food Purchasing Case Study. *Journal of Agriculture, Food Systems, and Community Development*, 3-13. http://dx.doi.org/10.5304/jafscd.2011.014.010.
[87] Hughes, D.W., Boys, K.A. (2015). What We Know and Don't Know About the Economic Development Benefits of Local Food Systems. *Choices: The magazine of food, farm, and resource issues.* Agricultural & Applied Economics Association.

an area, such as technology companies, smart manufacturing firms, and smaller modern companies with flexible work environments - also consider the community and business culture of the town or region into which they are moving. Employees who find satisfaction in the communities in which they live and work tend to be more productive and more loyal, and the millennial generation, one that values such characteristics, is projected to be 75% of the American workforce by 2025.[88]

Community and business culture: Local food economies can influence site selection decisions in two ways. First, for companies seeking validation from existing businesses in the region, strong local food economies are often an indicator of strong small business networks and an independent local culture that creates vibrant, energetic communities. Second, communities where local food supply chains exist and are supported by local government provide enhanced access to healthy and affordable foods – bringing down the cost of healthcare, a key consideration for most companies who employ full-time workers. Recent research also finds that communities with strong local business economies have lower mortality rates and health costs than in those dominated by big firms.[89]

More companies and employees are seeking locations in which community and business culture thrive - and local food economies can play a role in demonstrating a tight-knit community with shared values.
Photo Courtesy of JJ Richardson, CEFS.

Most Americans, across age groups and income levels, support purchasing local foods.[90] Similarly, the kinds of communities that are attractive for potential residents are those where residents feel connected to an authentic sense of place that is closely tied to existing natural and human capital.[91] Local food economies provide a way to help create a strong quality of place, which can be an important recruitment tool for communities seeking to attract businesses, and businesses seeking to attract and/or relocate employees. [92] Recent research suggests that "the next generation of talent is the first to identify more strongly with their communities than with their employers." Place-making around local foods is an attractive strategy for communities engaged in asset-based development of "authentic places that tend to become regional destinations." [93]

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[88] Pew Research Center 2015. http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/.
[89] BALLE and Kaiser Permanente. (2016). The Future of Health is Local: A Field Guide for Health Sector Leadership. Retrieved from https://bealocalist.org/sites/default/files/ Future-of-Health-is-Local-2016/flipviewerxpress.html.
[90] USDA KYF2, 2014: http://cfd153.cfdynamics.com/press/americans_support_local_food.cfm.
[91] Tropp, Debra. 2015: USDA AMS. https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/tuesdaysatapa/2015/dc/pdf/nov.pdf.
[92] Smart Growth America (2016). Rural Development Practices. http://www.smartgrowthamerica.org/rural-development/.
[93] Maher, Amanda. "Five Factors Driving Economic Growth in Small Cities." 2016. Initiative for Competitive Inner City Development. http://icic.org/5-strategies/.

Using a strong local food economy as a recruitment tool occurs through effective marketing of the sense of place in which you live. Farmers' markets, CSAs, open farmland, and community gardens are all good indicators of a strong community food system. In addition, the interlocked businesses that tend to form with the expansion of small agriculture – such as farm-to-table restaurants, small niche food processors, or breweries and taprooms – can also be used in recruitment marketing, and are often key components of downtown revitalization projects and the development of new consumer market spaces.

Local food economies as a retention & expansion tool

Because of the complexity of the local food value chain, there are often dozens of local enterprises associated with the retention and expansion of agricultural businesses. Farms are resource-intensive operations that require a number of inputs, from seeds to fertilizers, as well as equipment for plowing, harvesting, and irrigating. After harvest, other sets of companies also rely on those products in such industries as processing, storage, distribution, wholesaling, and retailing.

The relationships between small farm and food businesses and other small and mid-scale businesses within a region offer a significant opportunity for economic development programs to focus on the retention and expansion potential of their agricultural and food economies.[94]

In addition, agriculture offers unique opportunities for regional collaboration across county and town borders. Regionalism, an economic development and planning approach that considers needs across a defined geographic area and which includes multiple units of local government, allows for long-term market-based partnerships as well as coordinated strategies for development.[95] By its nature, agriculture is a regional enterprise, and offers communities a way to work together on important development issues. For example, recent research demonstrates that support of local food tourism networks increases stocks of social and human capital, deepens marketing opportunities for participating enterprises, and confers a price premium for food marketed as local.[96]

This section provides information about wholesale markets, institutional purchasing, repurposing of vacant land, and agritourism as ways to encourage economic expansion and retention programs with existing businesses.

Wholesale Markets for Local Foods

Wholesale markets provide a valuable market channel for farmers and producers who are seeking ways to scale up their production and profit margins. The NC Growing Together Project (NCGT) at CEFS is completing a five-year, USDA-funded program to explore ways to move more local products into mainstream markets, including wholesale distribution, grocery store, restaurant, and military procurement chains.

[94] Jenkins, C., Schepker, A., & Rhodes-Conway, S. (2014). Local Food and Economic Development: A Guide for Local Governments. *Center on Wisconsin Strategy, University of Wisconsin-Madison.* Center on Wisconsin Strategy, University of Wisconsin-Madison.
[95] Association of Wisconsin Regional Councils, 2014. http://www.awrpc.org/Regionalism.html.
[96] Dougherty, M. L., Brown, L. E., & Green, G. P. (2013). The Social Architecture of Local Food Tourism: Challenges and Opportunities for Community Economic Development. *Journal of Rural Social Sciences* 28(2), 1-27.

NCGT's research is supplemented by partnerships and collaborative work across the supply chain, involving wholesale distributors in the process. The research results can be useful to local governments and communities interested in learning more about the wholesale markets available in their region in a number of areas:

- Supply side: connecting small and medium-sized farmers and fishermen with retailers, food hubs, and food service buyers; providing training and capacity building to enable smaller producers to meet the requirements of larger buyers
- Demand side: addressing issues that have typically prevented larger buyers from purchasing from smaller producers, including adapting buying protocols to enable smaller purchasing
- Intermediary steps: understanding and removing barriers that prevent local foods from entering large-scale mainstream markets, particularly in aggregation, processing, and distribution.[97]

There are other considerations within distribution channels that affect the movement of local product into wholesale and institutional markets. Farm to Institution New England recently released a report on the barriers and opportunities in wholesale distribution in a six-state area of New England, based on a survey of 60 distributors.[98]

Wholesale markets offer a significant economic expansion opportunity for existing businesses interested in scaling up their production and sales. Wholesale buyers typically seek larger volumes of product at a set negotiated price, which can provide an economic foundation for small and medium-sized farm and food businesses, increasing their stability and long-term financial viability. However, wholesale markets require a number of policy and practice changes from farms and food businesses, and wholesale markets won't fit the business needs of everyone. Local governments can assist in capacity-building by partnering with local and state-level Cooperative Extension agencies and other agricultural development groups.

Local Foods in Groceries, Convenience Stores, and Corner Markets

Grocery stores can promote economic development in neighborhoods by providing jobs, anchoring established businesses, and raising surrounding property values. They can also increase access to fresh, healthy foods in low-income communities and serve as a market for local farmers.

Municipalities can play a vital role in increasing the availability of local foods through these channels. Several communities nationwide have developed programs that target small retail stores in underserved areas as a means to increase access to healthy foods, including local foods (see Resources at the end of this section for examples). Successful strategies for increasing access in these venues include: 1) providing grants, loans, or tax incentives for store improvements or healthy food purchasing, 2) providing assistance with marketing and

[97] NCGT 2016: www.ncgrowingtogether.org/about.
[98] FINE, 2016: Trends in New England Food Distribution. http://www.farmtoinstitution.org/blog/new-fine-report-reveals-farm-institution-trends-food-distribution.

promotional campaigns, and/or 3) assisting storeowners in finding local producers who could deliver direct-to-store.

City governments can work with community groups to assess which neighborhoods may not provide easy access to healthy, local foods (these areas are often termed "food deserts"). The USDA provides a Census Data-based map of food deserts across the country that can be used as a foundational component of any food system assessment, along with other datasets, as part of the Food Access Research Atlas.[99]

Economic development agencies can help attract grocery stores to those districts, and zoning ordinances can be reviewed and amended to allow a site to be used for retail food purposes. Some federal and state tax credits may be available to help attract business to specific geographic regions. [100] In the City of Greensboro, a USDA grant funded a study of the city's food deserts and linked socioeconomic status with access to fresh food; a later USDA implementation project aims to bring more fresh food to those neighborhoods.[101]

Additional Resources for Wholesale and Retail Markets

- In 2011, North Carolina's Division of Public Health began a multi-year, CDC-funded initiative called the Community Transformation Grant. Before its end, the project created resources available to grocery stores and corner stores interested in targeting food deserts with healthy food options: http://www.ncallianceforhealth.org/obesity-prevention/healthy-corner-store-initiative/.[102]
- One of the largest fresh-food retail projects in the U.S. is Pennsylvania's Fresh Food Financing Initiative, which has supported more than 80 fresh-food retail projects in 30+ counties in the state: http://www.thefoodtrust.org/pdf/FFFI%20Brief.pdf.
- New York City's FRESH Program (Food Retail Expansion to Support Health) identified food deserts and created an incentive program to encourage grocery stores to move into those neighborhoods and offer food grown and processed in the state: http://www.nyc.gov/html/misc/html/2009/fresh.shtml.[103]
- Many agencies offer information about wholesale purchasing, including the NC Growing Together Project (www.ncgrowingtogether.org) and the NC 10% Campaign (www.nc10percent.com).

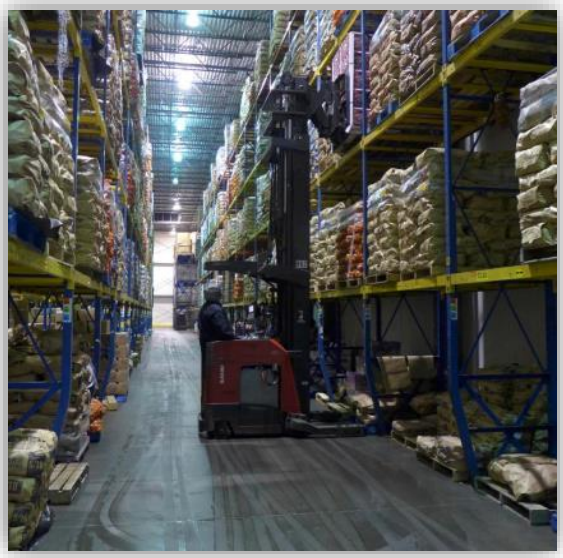
Local Foods in Institutions

Institutions such as schools and hospitals can play an important role in supporting the growth of local food systems by providing local, seasonally available foods within food service settings. A

[99] http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx
[100] Public Health Law and Policy (9/9/09) *Getting to Grocery – Tools for Attracting Healthy Food Retail to Underserved Neighborhoods.* Available at: www.phlpnet.org
[101] City of Greensboro, 2015.
[102] http://www.cdc.gov/communitytransformation/funds/programs.htm; http://gro-wnc.org/pdf/March_Workgroups/Community_Transformation_Grant_Overview.pdf
[103] New Your City's FRESH Program description - Available at: http://nyc.gov/FRESH

variety of farm-to-school initiatives have established connections to K-12 schools (see resource links below). Colleges and universities across North Carolina including UNC-Asheville, UNC-Wilmington, NC State University, Duke University, Warren Wilson College, NC A&T State University, and others have also become involved at various levels by establishing campus farmers markets and purchasing local food for their cafeterias. A number of hospitals in North Carolina also provide space for a farmers market for employees and community residents.

There are a number of factors that make providing local foods within institutional food service settings a challenge, particularly factors related to liability insurance, food safety certification requirements, and the logistics and additional cost involved of sourcing foods from multiple farms. Local governments can help address these factors and take the first step by establishing policies and goals to procure a certain percentage of foods from local sources.



Institutional purchasing can have a significant impact on local food systems, due to the volumes at which products are purchased. Photo courtesy of S. Naskaris.

Increasing the amount of local fresh produce served in public schools is an initiative that is receiving support at both the federal and state levels. Within North Carolina, the NC Department of Agriculture and Consumer Services actively supports farm-to-school programs, and non-profits and other organizations, including the *Growing Minds* program at the Appalachian Sustainable Agriculture Project[104] and the FoodCorps[105] program supported by the NC Cooperative Extension's 4-H program and the Center for Environmental Farming Systems are working together to connect kids with locally grown foods. For public school districts specifically, the North Carolina General Assembly recently amended the school procurement bill to allow schools to implement policies and procedures that "maximize, to the extent practicable, purchases of food grown or raised in North Carolina." This means that schools, which typically are restricted to lowest-bid purchases made with state and federal funds, now have the flexibility to set preferences in their contracting process to allow for local food procurement when possible.[106] (For more information and resources concerning local food procurement by local government units, see the "Local Food for Local Governments" section above.)

[104] www.asapconnections.org
[105] https://foodcorps.org/
[106] Senate Bill 770, NC General Assembly. 2016. Section 8, part 2 of Article 17. 115C-264.4. www.ncga.state.nc.us/Sessions/2015/Bills/Senate/PDF/S770v8.pdf.

In addition to purchasing local foods, many school districts in North Carolina are now implementing research and learning at school gardens (Chapel Hill-Carrboro City Schools have one garden at each of their 18 school campuses) and school farms (Durham County Schools HUB Farm provides a 30-acre research and production area for students).

Additional Resources for Institutional Purchasing

- NC Farm-to-School program: NC Department of Agriculture and Consumer Services provides a map with farms and participating school districts – see: http://www.ncfarmtoschool.com.
- For information on the farm-to-school programs across the US: http://www.farmtoschool.org/our-network.
- The document *Michigan Good Food Institutional Food Purchasing* ((http://www.michiganfood.org/uploads/files/inst_food_purchasing_report.pdf) provides helpful information on how to establish institutional food purchasing.
- Farm to Institution New England (FINE) provides a number of resources for hospitals, schools, and universities interested in local food procurement strategies. Particularly useful is the Foodservice Toolkit, which provides samples of foodservice RFPs and contracts which require percentages of local products or other local food programming in institutional settings: www.farmtoinstitution.org/.

Vacant Land for Food Systems

Vacant, publicly owned land within counties or towns can be used as a valuable resource for promoting the health and vitality of citizens and the local economy. Government-owned land can be used temporarily or permanently for food production, processing, distribution, and sales. Local government officials can involve community groups and organizations to determine their specific interests and needs related to community gardening, farmers markets, urban farms, or other aspects of local foods infrastructure such as processing and distribution. Community Food Lab produced a guide to how farms and gardens build urban value that provides useful information on utilizing vacant land to increase economic value.

An inventory of existing vacant lots within various zoning districts can be assessed and policies developed for specific uses. Factors such as the availability of water, soil quality, parking, lighting, security, and the benefits to and impacts of adjacent land uses should all be considered.[1] City and county governments can support the local food system infrastructure by simplifying the permitting process, providing resources (financial and technical assistance), and by promoting collaboration between community stakeholders and farmers. By allowing for flexibility within the Unified Development Ordinance (UDO), municipalities can ensure flexibility and accommodation for urban farming practices rather than discourage them with unnecessarily restrictive zoning codes. One example of a flexible UDO is that of the Town of Matthews, NC (see resources below).

Urban parks may also be considered as a potential site for a community garden and incorporated into the long-term plan. An urban community garden or mini-farm could also serve as a tourist

attraction, much like a botanical garden, while providing open space and opportunities to learn about the importance of locally grown food. In some cases, even existing public facilities like recreation centers have been used as points for installation of community kitchens and other food system infrastructure.[107] Essential to developing and supporting a local food system is growing public awareness of its importance and its potential to serve both community and economic development purposes.

A number of North Carolina county and municipal governments support local food economies by donating land for farmers markets, incubator farms, or food-processing centers for value-added farm products. For example, the cities of Carrboro, Clayton, and Durham provided land and initial funding to establish farmers markets; Goldsboro provided vacant land to develop a farm in town; Cabarrus County provided land for the Elma C. Lomax Incubator Farm; Orange County provided a building for the Piedmont Food and Agricultural Processing Center; and McDowell County provided land for establishment of a small-scale poultry and rabbit processing facility.

In addition, local governments can assist in preventing vacant farmland situations by assisting in the promotion of "farmlink" programs that match new or expanding farmers with vacant farmland (often from retiring farmers without a succession plan in place). In North Carolina, a western region program (WNC Farmlink) and a central and eastern program (NC Farmlink) serve as basic infrastructure for farmland matching efforts.

Additional Resources for Utilizing Vacant Land for Food System Development

See the resource sections for urban agriculture, community gardens, and farmers markets for information on these possible uses of vacant lands.

- For information on CEFS' incubator farm and *Bringing New Farmers to the Table* project, see: http://www.cefs.ncsu.edu/whatwedo/foodsystems/beginningfarmers.html.
- For an example of a UDO permitting flexibility in regards to urban farming, refer to the Town of Matthews UDO, Chapter 5: Use Districts (155.506.19): https://matthews.municipalcms.com/files/documents/UDOChapter5UseDistricts1318022915051616PM.pdf.
- For more information on NC Farmlink programs, see: http://ncfarmlink.org/.

Agritourism

Agritourism has become an innovative industry in North Carolina, growing from traditional farm tours into a diverse array of offerings that incorporate a number of products across the state. From cheese trails to winery walks, agritourism now represents one of the most high-growth tourism sectors in North Carolina.

Perhaps the most basic component of agritourism is the farm tour, a means by which visitors are brought on-site to a farm or vineyard to see farming firsthand. Farm tours highlight the agricultural benefits of North Carolina's diverse production regions. Depending on the season and the region, a farm tour could include a winery, corn maze, or a dairy selling fresh cheese – or

[107] City of Greensboro 2015 Fresh Food Access Plan: http://www.greensboro-nc.gov/modules/showdocument.aspx?documentid=28019.

follow more recent trends and incorporate a number of farms across a region as a way to collectively promote agritourism efforts. For example, the ASAP Farm Tour highlights member farms in its regional coverage area; the NC Cheese Trail highlights cheese producers across the state.

The statewide farm guide, *Farm Fresh North Carolina: The Go-To Guide to Great Farmers Markets, Farm Stands, Farms, Apple Orchards, U-Picks, Kids' Activities, Lodging, Dining, Choose-and-Cut Christmas Trees, Vineyards and Wineries*, includes more than 425 farms across North Carolina. This type of publication increases the potential for agritourism, which provides farms an opportunity to not only educate residents about farming, forestry, and horticulture directly, but also gives farmers a chance to highlight and sell their locally grown products at the same time.

Agritourism has evolved from traditional farm tours to include demonstration events, winery tours, cheese trails, and many other ways to connect visitors with the work of local food production.
Photo courtesy of JJ Richardson, CEFS.

North Carolina's Department of Agriculture & Consumer Services (NCDA&CS) implemented an Agritourism Director position in 2015. The new office showcases farms across the state; provides resources and assistance for farms and organizations interested in promoting agritourism; and works with other marketing organizations to promote NC products. The NC Agritourism Networking Association hosts the only statewide conference on agritourism and provides peer-to-peer learning opportunities for collaboration and best practices.

Agritourism requires local government support through appropriate ordinances and zoning. Agritourism is included in the definition of agriculture (N.C.G.S § 106-581.1), which is also referenced in the exemption for bona fide farm purposes from county zoning. Depending on how county and municipal government land-use ordinances are written and enforced, zoning permits or other requirements may be applied to agritourism activities. Whether a county zoning ordinance or other regulations should be applied to an agritourism activity may require determination on a case-by-case basis. Municipalities can support agritourism by permitting it as an allowed use within their zoning or unified development ordinances. (See the Planning & Land Use section of this guide for more information on agriculture-specific zoning regulations.)

Towns and counties can also support agritourism efforts by integrating agritourism promotion into existing Chamber of Commerce and Travel & Tourism Authority efforts and by sponsoring or promoting local and regional branding efforts that focus attention on regional products.

Additional Resources for Agritourism

- The Carolina Farm Stewardship Association, founded in 1979, held its first annual farm tour in 1995 http://www.carolinafarmstewards.org/. Charlotte, Raleigh, and many other municipalities and counties in the state have begun to offer seasonal tours. Check with your local Cooperative Extension office for nearby tours.
- See the NCDA & CS agritourism website http://www.ncagr.gov/markets/agritourism/
- NC Cooperative Extension Agritourism information: (http://www.ncsu.edu/tourismextension/)
- For a sample of an agritourism ordinance from Guilford County, see: http://www.farmlandinfo.org/guilford-county-nc-agricultural-tourism-ordinances.
- Brunswick County's definition of "agricultural tourism":
    - *An enterprise or activity operated in conjunction with and on a bona fide farm that is offered to the general public (or to invited groups) for the purpose of enjoyment, education, or active involvement in the activities of the farm or operation. This may include farm stands, farmers markets, wineries, and other enterprises that are located on a bona fide farm and sell farm commodities produced on the farm and from other nearby bona fide farms. http://www.brunswickcountync.gov/planning/files/2015/04/UDO_Final.pdf*
- Iredell county's zoning ordinance on agritourism: https://www.co.iredell.nc.us/DocumentCenter/Home/View/421
- The Appalachian Sustainable Agriculture Project offers a resource on farming, tourism, and economic development: *Farm Promotion & Support - Ideas and Tools for Economic Development and Tourism Development Authorities* (http://www.asapconnections.org/farmpromotionandsupport.pdf).

Local food economies as a business creation tool

Small farms make up a significant percentage of North Carolina farms. [108] Small farms are small businesses, and many of the associated businesses in the supply chain that support the production, processing, distribution, and consumption of food products are also small businesses and entrepreneurial firms. Supporting the creation of new entrepreneurial ventures and small businesses is a critical component of any business creation program at the local or regional level.

Small Business Development & Entrepreneurship

Small farm and food businesses are, like many other startup and entrepreneurial ventures, often associated with high startup costs, increased risk over the first 3-5 years of business, and subject to unique legal and regulatory influences from the local, state, and federal levels on everything from property tax assessment to food safety regulations. It is important that local developers

[108] NCDA&CS Small & Minority Farm Program (2015). http://www.ncagr.gov/SmallFarms/FAQs.htm.

work to ensure that their clients have access to the resources needed to navigate these complex processes.

Many successful collaborative programs, often referred to as "farm schools" or "ag entrepreneurship" courses, have been piloted by Small Business Centers (SBCs) and Extension offices across the state, to ensure that beginning farm and food businesses have access to both financial planning and food-specific guidance. North Carolina Cooperative Extension's Farm School program is an award-winning curriculum for in-depth farm business training. The program includes eight business planning seminars taught by extension specialists, agents, and experienced farmers, which helps students to create viable farm business plans and offers on-farm instruction. More information is available at https://ncfarmschool.ces.ncsu.edu/.

Some of these programs are based on the REAL Ag Curriculum, a statewide entrepreneurship development training program in use in the state since the 1990s. The Sequoyah Fund has recently purchased this curriculum and plans to release an updated agricultural curriculum and training process in 2016. The use of farmer-teachers and peer-to-peer learning opportunities, combined with guest lecturers from regulatory agencies, insurance specialists, and financing representatives is encouraged, to make these courses as practical as possible. (CEFS has profiled a number of these cases, including the Appalachian Farm School and Vance-Granville Community College, at https://cefs.ncsu.edu/food-system-initiatives/local-food-economies/case-studies/.)

The North Carolina Department of Agriculture offers one-on-one technical assistance for farms and food businesses as well as online resources for business planning and regulatory contacts.[109] The Small Business Center Network, housed at community colleges across the state, has promoted many farm school and agricultural entrepreneurship programs in various regions.[110] The SBTDC (Small Business & Technology Development Center) network, housed in universities across the state, also provides one-on-one client services and has assisted farm and food businesses with development of business plans and access to financing.[111]

Additional Resources for Small Business & Entrepreneurship

- The North Carolina Department of Agriculture GAIN Program provides a number of small business resources aimed specifically at small and minority farms: http://www.ncagr.gov/SmallFarms/FAQs.htm.

- The N.C. Cooperative Extension Service houses a multidisciplinary group of professionals at the N.C. Research Campus in Kannapolis as part of the Plants for Human Health Institute. Providing expertise in farm business management, communications and marketing, and fresh produce safety, these Cooperative Extension staff serve as an outreach component to complement the research conducted at the institute: http://plantsforhumanhealth.ncsu.edu/extension/overview.

- The N.C. Value-Added Cost Share Program, also housed at the N.C. Research Campus, provides assistance with feasibility studies, business structure and business planning as

[109] http://www.ncagr.gov/gain/agribusiness_resources.htm
[110] https://www.ncsbc.net/
[111] http://www.sbtdc.org/

well as cost-share to agricultural producers and processors for equipment for adding or expanding value-added agriculture products. Learn more at http://www.ncvacs.org.

- Carolina Farm Stewardship Association provides a guide to laws and regulations that impact local food businesses in North Carolina: https://www.carolinafarmstewards.org/wp-content/uploads/2012/10/CFSA_RegGuide-NC2012_webres4.pdf.
- The N.C. Cooperative Extension Service maintains a web portal for new farm businesses that provides economic planning and operational guidance: https://growingsmallfarms.ces.ncsu.edu/growingsmallfarms-econlinks/.
- The NC Farm School can be found here: https://ncfarmschool.ces.ncsu.edu/.
- Southern Sustainable Agriculture Working Group (SSAWG) collects and provides resources for farm and food businesses across the Southeastern region: http://www.ssawg.org/getting-started/.

Microlending and Access to Capital

For many years, small farmers in the U.S. faced restrictions to capital from traditional lending institutions.[112] While many of those barriers are still in place and have been discussed elsewhere in this guide, new programs are being launched each year to make it easier for farms and food businesses to access capital for starting or expanding their small businesses.

In North Carolina, The Support Center has developed a financing program specific to farm and food businesses, offering low- and no-interest loans to support healthier communities through agriculture and food system development.[113] Self-Help Credit Union in North Carolina has a Food System Finance program that addresses individual, small business, and nonprofit needs across the food system.[114]

The NC Rural Center, which provides services to all 85 rural counties in the state, provides technical assistance and financing packages from a number of providers who work specifically with farm and food businesses.[115] In 2016, USDA Rural Development expanded its financing programs to support beginning farmers and ranchers with infrastructure expansions such as on-farm cold storage facilities. The NC Tobacco Trust Fund also provides small grants to agricultural businesses across the state. USDA provides a number of different lending programs, all of which are catalogued here.[116]

The Small Business Center(SBC) network of affiliated centers at North Carolina community colleges, along with the Small Business & Technology Development Centers (SBTDC) based at North Carolina universities, have worked to integrate small business resources including loan

[112] Southern SAWG (2011). http://www.ssawg.org/home/2011/11/23/new-report-describes-needs-of-young-and-beginning-farmers.html.
[113] https://thesupportcenter-nc.org/
[114] https://www.self-help.org/what-we-do/we-build/foodsystemfinance
[115] www.ncruralcenter.org
[116] https://www.nal.usda.gov/ric/small-farm-funding-resources.

packaging into their traditional offerings. More information on each center's available programs for lending can be found at the SBC Network website and the SBTDC website.

Additional Resources for Microlending and Access to Capital

- **Small Grants through the NC Tobacco Trust Fund Commission:** The TTFC offers small grants managed by NC Cooperative Extension and RAFI to assist with projects that can help ensure GAP/GHP compliance. *Grants are specific to various regions, and farmers must contact their local extension agent or RAFI's office to begin the application process.* TTFC also offers direct compensation to former tobacco farmers, but most farms apply through TTFC's partner funding agencies, listed below. http://tobaccotrustfund.org/grants/.
    - **RAFI-USA Agricultural Reinvestment Fund:** Alamance, Bertie, Caswell, Chatham, Chowan, Durham, Franklin, Granville, Halifax, Hertford, Northampton, Orange, Person, Randolph, Vance, and Warren; http://rafiusa.org/grants/. Applications released annually in fall. **RAFI's** past awards in recent years have included vegetable cooling and packing infrastructure; loose leaf tea production equipment; restoration of a grain mill; educational facilities for on-farm agritourism; soybean processing for hog feed; fencing; water and irrigation systems; on-farm cooling systems; barns and storage areas; computer technologies; mobile market units; aquaponics systems; packaging systems; flash-freezing; and more: http://rafiusa.org/grants/rafi-grant-recipients/.
    - **AgVentures:** Duplin, Edgecombe, Forsyth, Greene, Guilford, Johnston, Lenoir, Martin, Nash, Pitt, Rockingham, Sampson, Stokes, Surry, Wayne, Wilson, and Yadkin; https://agventures.ces.ncsu.edu/grant-program/. Applications released annually in fall. AgVentures has provided recent grants in the areas of harvest, planting, and growing equipment; RFID inventory systems; filtering and irrigation systems; new market niche products; flash-freezing and vacuum packaging; value-added manufacturing systems; internships; research of new products and pest control measures; season extension; agritourism; and more: https://agventures.ces.ncsu.edu/grant-awards-by-year/.
    - **WNC AgOptions:** Avery, Buncombe, Burke, Caldwell, Clay, Cherokee, Cleveland, Eastern Band of Cherokee Indians, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Watauga, and Yancey; http://www.wncagoptions.org/. Applications released annually in October. WNC AgOptions has awarded recent grants in the areas of aquaponics systems; on-farm cooling; cold storage; retrofit of existing facilities; new seedling management systems; steam pasteurization; pest management systems; production and packaging equipment; season extension; and others: http://www.wncagoptions.org/category/by-county/.

- **UMO Ag Prime (University of Mount Olive):** Cumberland, Lee, Moore, Richmond, and Robeson; http://www.umoag.com/AgPrime/index.php. Applications released annually in fall/winter.

- **NC Rural Center Microenterprise Loan Program,** geared towards larger projects or to complement grant funding, provides microenterprise loans to rural businesses, with a specific focus on supporting agriculture through low-interest loans that many banks will not secure. They also offer technical assistance and training: http://www.ncruralcenter.org/business-programs6/microenterprise39.

- **The Support Center of North Carolina** is a statewide CDFI (Community Development Financial Institution) which approves micro-loans on behalf of the US Small Business Administration (SBA), the USDA Farm Service Agency (FSA), and US Department of Transportation (DOT). They also offer technical assistance and training: https://thesupportcenter-nc.org/lending.

- **Self-Help Credit Union,** a nonprofit banking agency in North Carolina and some other states, has a Food System Finance lending program designed specifically for small businesses and nonprofits working to develop local food systems: https://www.self-help.org/what-we-do/we-build/foodsystemfinance.

- **2016: USDA has updated their Small Farm Loan Program to include microloans for mobile packing and cooling units.** This allows applicants to qualify for a reduced down payment and avoid the requirements of providing three years of production history and demonstrating the lack of commercial credit availability. Farms and ranches of all sizes are eligible, but the program is expected to be especially beneficial for smaller farms and ranches and specialty crop producers who may not have access to commercial storage or on-farm storage after harvest. http://www.fsa.usda.gov/programs-and-services/farm-loan-programs/microloans/index

- **USDA Rural Development** offers a number of programs to help farmers and ranchers of all levels access funding from a variety of sources. For a county and state directory, visit http://www.rd.usda.gov/. **The USDA Value-Added Producer Grants** are an especially relevant tool: http://www.rd.usda.gov/programs-services/value-added-producer-grants.

- **Many regions have local CDFIs (community development finance institutions) that serve particular geographic areas.** The Opportunity Finance Network maintains a database of CDFIs by state at http://ofn.org/cdfi-locator.

Collaborations and Partnerships for Local Food Economies

Overview

The motivation to build a more vibrant local food system can come from many sources in the community. Farmers and ranchers, particularly those new to agriculture, are often eager to make more direct sales to restaurants, groceries, and consumers; chefs seek fresh and sustainably raised produce and meats; public health offices seek to increase residents' consumption of fresh local foods; and tourism and economic development professionals see in local foods a way to revitalize rural communities. Nontraditional partners are common in the work of developing food systems, and collaboration is a critical component of successful food economies. This section of the guide outlines specific strategies for building innovative and effective partnerships for collaborative food system development.

Connect with County Extension Staff and Other Community Partners

Cooperative Extension can provide knowledge, skills, and expertise on a broad range of agriculture-related topics through their website, classes, training, and technical assistance. In collaboration with the Center for Environmental Farming Systems' 10% Campaign in 2011, the NC Cooperative Extension Service appointed a Local Food Coordinator in every county and designated six regional Local Food Coordinators. Local Food Coordinators and others in county Extension offices can partner with local officials and community members on a range of different ways to promote the growth of a local food system, including connecting farmers to retail business markets, establishing farmers markets and farm-to-school programs, increasing access to fresh and local products for underserved communities, and helping design policies such as local government procurement of local foods.

Others in local government and community organizations have acted in partnership with Extension to develop community-based food systems. This work includes partnerships with tourism offices to sponsor farm tours and with economic development offices to support venues for local farm sales.[117]

Community colleges have also supported local food system development. For example, Central Carolina Community College's Sustainable Agriculture Program began in 2002 with support from

[117] Dunning, R., Nancy Creamer, Joanna Massey Lelekacs, John O'Sullivan, Tes Thraves, and Teisha Wymore. Educator and Institutional Entrepreneur: Cooperative Extension and the Building of Localized Food Systems. *Journal of Agriculture, Food Systems, and Community Development, 3*(2): 1 -15.

Cooperative Extension and the Carolina Farm Stewardship Association; Southwestern Community College has hosted a farm school for three consecutive years in partnership with regional Extension offices; and Vance-Granville Community College has hosted an Ag Entrepreneurship program and assisted farmers in obtaining GAP certification.

Public health offices have also become important advocates of community food systems. The Centers for Disease Control and Prevention (CDC) uses the availability of locally produced food and the existence of food policy councils as indicators of healthy food environments.[118] In 2011, North Carolina's Division of Public Health began a multi-year, CDC-funded initiative called the Community Transformation Grant, and the two nutrition focus areas of the initiative were to increase access to farmers markets and to fresh produce at convenience and corner grocery stores.[119] Although the grant ended in 2015, many of the public health departments across the state maintain relationships with farmers markets, CSAs, and others in the food system community.

Additional Resources for Extension & Community Partnerships

- Contact your county Cooperative Extension office to find your Local Food Coordinator: www.ces.ncsu.edu/county-centers.
- CEFS and NC Cooperative Extension led an initiative to engage community members and organizations in developing various aspects of their local food systems. Read about the initiative here: http://www.cefs.ncsu.edu/whatwedo/foodsystems/sarepdpcbfs.html.
- Learn about CEFS 10% Campaign: http://www.nc10percent.com/
- NC Cooperative Extension's Market Ready program provides educational resources to increase economic development of agriculture: http://www.ncmarketready.org/.
- Contact the NC Division of Public Health to learn more health organizations' involvement in local food development efforts: http://publichealth.nc.gov/.

Create a Food Policy Council or Food Collaborative

Food policy councils at the regional, county or municipal level can bring diverse voices from government and community groups together to discuss and implement policies and programs in support of local food systems. Food policy councils have been organized at the town, county, and state level across the U.S. As of 2015, there were nearly 300 food policy councils in North Carolina; only 18% were housed in government agencies, but over 35% had direct involvement from local governments through membership participation.[120]

[118] http://www.fruitsandveggiesmatter.gov/health_professionals/statereport.html
[119] http://www.cdc.gov/communitytransformation/funds/programs.htm; http://gro-wnc.org/pdf/March_Workgroups/Community_Transformation_Grant_Overview.pdf
[120] Center for a Livable Future (2015). Food policy council directory, 2015 Update [PowerPoint slides]. Retrieved from http://www.jhsph.edu/research/centers--and--institutes/johns--hopkins--center--for--a--livable--future/projects/FPN/directory/index.html.

Food policy councils often serve as government advisory groups, making recommendations on ways to localize food systems. In some cases, governments supply research and administrative staff for the council to carry out its work. Dedicated staff can be critical in keeping initiatives moving forward and growing the network of interested parties, and can also apply for some of the numerous local foods grant opportunities available from the USDA, HUD, and private foundations.

In North Carolina, there are now more than 23 food policy councils (local or regional) that are beginning to network through Community Food Strategies, a statewide organization of groups that work to strengthen food council capacity and partnerships. An example of an N.C. county-based council with ongoing staff support is that of Cabarrus County.[121] The council supported the development of a county-based local foods assessment, development of a beef slaughter facility, and promotion of a local food marketing campaign designed to support local businesses that produce, distribute, process, prepare or otherwise use food grown or raised in the county.

Additional Resources for Food Councils and Collaboratives

- North Carolina established its Sustainable Local Food Advisory Council in 2009: http://www.ncagr.gov/localfood/
- Community Food Strategies is a statewide partnership of food-system advocacy organizations that works to connect, support, and strengthen food policy councils across the state: www.communityfoodstrategies.com.
- The Agricultural Law Center at Drake University offers a helpful set of Frequently Asked Questions about setting up food policy councils: http://www.statefoodpolicy.org/?pageID=qanda
- The Community Food Security Coalition has a food policy council finder for the U.S. and other resources to help communities develop councils: http://foodsecurity.org/programs/food-policy-councils/list-of-food-policy-councils-in-north-america/
- The National Sustainable Agriculture Coalition offers a useful guide giving an overview of the structure of the USDA, descriptions of fifteen grants and programs that are relevant to local and regional food systems development, and case studies of regional food systems projects that received funding: http://sustainableagriculture.net/wp-content/uploads/2010/05/NSAC_FoodSystemsFundingGuide_FirstEdition_4_2010.pdf.
- Johns Hopkins University's Center for a Livable Future at the Bloomberg School of Public Health connects food policy councils across the nation with resources and research: http://www.foodpolicynetworks.org/.

[121] cabarrusfpc.org

- The Harvard Law School operates a Food Law & Policy Clinic that addresses legal and regulatory issues around food access and production: http://www.chlpi.org/food-law-and-policy/.

Network Producers and Buyers to Learn About Local Markets

A simple way to help strengthen market opportunities for farmers while making more local products available to consumers is to network producers and buyers in your region. This networking can take the form of grower-buyer "mixers," in which producers have an opportunity to personally meet buyers such as wholesale distributors or chefs. It can also be accomplished by providing online platforms to introduce buyers and producers, or by ensuring both groups are actively part of planning and development efforts. Local governments have an opportunity to provide critical connections between industries in their communities, and to provide a safe and neutral space for producers to make market connections.

Before local governments get involved in these networking opportunities, it is recommended that they contact Extension offices, Soil & Water Conservation District offices, and retailers and wholesalers to understand the nature and scope of the existing market in their communities.

Additional Resources for Networking Producers and Buyers

CEFS and the NC Growing Together Project have designed a Guide to Hosting Grower-Buyer Networking Events with best practices for these events: https://cefs.ncsu.edu/resources/grower-buyer-connections-planning-guide/.

Conduct a Local Food System Assessment

Figuring out how to build a local food system starts with determining the status of the present food system and the community's goals and available assets. Local food assessments have emerged as a means by which communities can collect information on their food systems and devise a strategy for the future. Food assessments can be conducted at any geographic level - town, county, region, or state. Many tools are available to assist communities in this type of evaluation and analysis.

www.localfoodeconomies.com

FSAs can also be of varying complexity and focus on some or all of the parts of the food system: what is produced, how it is processed and distributed, where it is consumed, and how the refuse is disposed of. Food assessments can be very complex and include detailed studies conducted over many months, or can be as simple as convening a group of stakeholders to discuss local food system needs and brainstorm solutions.

Successful food assessments include a broad range of community stakeholders: farmers, urban/rural planners, NC Cooperative Extension Service Agents, the NC Farm Bureau, health departments, rural economic development specialists, and community organizations.

Community Food Strategies has developed a comprehensive toolkit for communities interested in conducting FSAs. In North Carolina, the Cape Fear Council of Governments, in partnership with the Southeastern NC Health Partnership and Feast Down East, conducted a comprehensive food system assessment that tracked food system development in alignment with health and equity goals.[122] Cabarrus County completed a food system assessment in 2012.

Additional Resources for Local Food System Assessments

- NC State University maintains a comprehensive listing of tools for these assessments and examples of successful assessments: https://localfood.ces.ncsu.edu/community-food-assessment/.
- Regional councils of government may be able to provide technical assistance for smaller communities and counties wishing to conduct assessments, such as mapping or facilitation services. Find your council at www.ncrcog.com.
- The USDA's Economic Research Service provides a how-to kit on conducting a community food security assessment. This type of assessment focuses primarily on the food and nutritional needs of low-income residents and seeks to improve access and availability of healthy foods to these residents: See the Community Food Security Assessment Toolkit (http://www.ers.usda.gov/publications/efan02013/efan02013.pdf).
- The Community Food Security Coalition (http://www.foodsecurity.org) also provides a guidebook, survey tools, and numerous helpful publications, including this guide to assessments: http://foodsecurity.org/pub/whats_cooking.pdf.
- The Cabarrus County Food System Assessment was conducted as a planning tool for the county to identify the assets, challenges, and strategies to developing a local food system (http://www.ncagr.gov/localfood/documents/4-10-12/Cabarrus-County-Food-System-Assessment-Final-Report.pdf).
- The Cooperative Extension Services in North Carolina and Virginia collaborated to create a Facilitators' Guidebook for Community-Based Food System Assessment and Planning. (http://www.cfse.ext.vt.edu/images/stories/cfsappfinal.pdf).
- Community Food Strategies maintains information on existing Food System Assessments in NC as well as resources for regions interested in conducting their own: https://communityfoodstrategies.com/what/action/plans/.
- State and county-level agricultural production statistics that are useful in preparing food assessments are provided at the state and national departments of agriculture:

[122] https://communityfoodstrategies.com/2016/02/25/2016-feast-down-east/

- The US Department of Agriculture's Agriculture Census data includes county-level profiles: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/index.asp.
- CEFS has also produced infographics showing the county-level differences between 2007 & 2012 USDA Census data for each county and council of government in North Carolina: https://cefs.ncsu.edu/food-system-initiatives/local-food-economies/infographicscounty-ag-profiles/.
- USDA's Food Environment Atlas has a range of useful county-level data: http://www.ers.usda.gov/data-products/food-environment-atlas.aspx.
- North Carolina Department of Agriculture and Consumer Services Division of Statistics provides detailed information on NC agricultural production: http://www.ncagr.gov/stats/index.htm.