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## Regional Foodsheds: Are Our Local Zoning and Land Use Regulations Healthy?

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## REGIONAL FOODSHEDS: ARE OUR LOCAL ZONING AND LAND USE REGULATIONS HEALTHY?

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### INTRODUCTION

Governments at all levels have become increasingly interested in fostering healthy eating habits and sustainable agricultural production.<sup>1</sup> Promoting access to locally grown produce is an important part of many policy goals seeking to address these concerns, and the concept of regional foodsheds has risen in

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1. *See, e.g.*, AM. PLANNING ASS'N, POLICY GUIDE ON COMMUNITY AND REGIONAL FOOD PLANNING 2 (2007), <http://www.planning.org/policy/guides/pdf/foodplanning.pdf> [hereinafter Policy Guide on Community and Regional Food Planning] (discussing increased interest in food planning). Many of these ideas are not new, however, and can be traced back to the community gardening movement that took hold in the 1970s. *See* J. BLAINE BONHAM, JR., GERRI SPILKA & DARL RASTORFER, AM. PLANNING ASS'N, PLANNERS ADVISORY SERVICE REPORT NO. 506/507, OLD CITIES/GREEN CITIES: COMMUNITIES TRANSFORMING UNMANAGED LANDS 16 (2002); KIMBERLY HODGSON, MARCIA CATON CAMPBELL & MARTIN BAILKEY, AM. PLANNING ASS'N, PLANNING ADVISORY SERVICE NO. 563, URBAN AGRICULTURE: GROWING HEALTHY, SUSTAINABLE PLACES 12 (2011). The United States is not alone in realizing the important connection between urban design and healthy living. A recent report from Australia explains that, "Currently planning legislation and policies do not articulate the importance of creating and maintaining a resilient and sustainable foodsystem. Nor do they emphasise that sustainable and equitable food provision and access to food is central to net community benefit and sustainable development." HEART FOUND., FOOD SENSITIVE PLANNING AND URBAN DESIGN: A CONCEPTUAL FRAMEWORK FOR ACHIEVING A HEALTHY AND SUSTAINABLE FOOD SYSTEM 2 (2011), [http://www.ecoinnovationlab.com/uploads/attachments/article/417/HF-FSPUD\\_Summary-HRFINAL.pdf](http://www.ecoinnovationlab.com/uploads/attachments/article/417/HF-FSPUD_Summary-HRFINAL.pdf).

popularity as one method to achieve these goals.<sup>2</sup> Somewhat akin to a watershed or a planning area delineated around a shared natural resource (e.g., the Hudson River Valley Greenway or the Adirondack Park), a foodshed is a geographic area in reasonably close proximity to where an urban community receives agricultural commodities.<sup>3</sup> While most American communities draw on interstate and international foodsheds to obtain processed and fast food,<sup>4</sup> understanding regional and community geography and patterns of local food production can help governments to understand and encourage demand for local foods. Research indicates that community based food systems have the potential to “simultaneously address issues of food security, public health, social justice, and ecological health in local communities and regions . . . .”<sup>5</sup> Ideally, foodshed planning can help communities to strengthen their regional food networks, resulting in lower delivery costs, reduced greenhouse gas emissions, stronger local economies, healthier diets for residents, and a variety of other benefits.<sup>6</sup>

Food production and consumption patterns are influenced by a range of federal, state, and municipal policies, but meaningful change in regional food system policies is likely to start with state and local governments,<sup>7</sup> which can take proactive measures to strengthen their

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2. See, e.g., Michael Pollan, Op-Ed, *Big Food vs. Big Insurance*, N.Y. TIMES, Sep. 10, 2009, at A43, available at <http://www.nytimes.com/2009/09/10/opinion/10pollan.html> (noting that when a team of designers at MIT was asked to develop an innovative approach to combat childhood obesity, “they determined that promoting the concept of a ‘foodshed’—a diversified, regional food economy—could be the key to improving the American diet.”).

3. The term “foodshed” has actually been in usage for nearly eighty years. See *Local Foodshed Mapping Tool for New York State, What is a Foodshed?*, CORNELL UNIV. DEPT. OF CROP & SOIL SCI., <http://www.cals.cornell.edu/cals/css/extension/foodshed-mapping.cfm#foodshed> (last visited May 17, 2011).

4. See Peter Dizikes, *Good Food Nation*, MIT NEWS, Nov. 10, 2009, <http://web.mit.edu/newsoffice/2009/foodshed.html> (“Only 1 to 2 percent of all food consumed in the United States today is locally produced.”).

5. HODGSON ET AL., *supra* note 1, at 4.

6. Kate Clancy & Kathryn Ruhf, *Is Local Enough? Some Arguments for Regional Food Systems*, CHOICES, 1st Quarter 2010, [http://www.choicesmagazine.org/magazine/pdf/article\\_114.pdf](http://www.choicesmagazine.org/magazine/pdf/article_114.pdf).

7. See, e.g., Conference Report, Urban Design Lab, *Regionalizing the Food System for Public Health and Sustainability* 12 (Nov. 17, 2010), [http://www.urbandesignlab.columbia.edu/sitefiles/file/pres\\_NESAWG\\_text\\_110111.pdf](http://www.urbandesignlab.columbia.edu/sitefiles/file/pres_NESAWG_text_110111.pdf) [hereinafter *Urban Design Lab Presentation*] (“[C]ities will likely be the

regional foodsheds through a variety of land use planning and regulatory actions. Regional foodshed planning must be comprehensive, and it should “approach food not just [as] a commodity but as an infrastructural system. . . that needs to be managed and considered in all urban and regional planning efforts.”<sup>8</sup> Food systems planning includes production, transformation or processing, distribution, access and consumption, and waste/resource recovery,<sup>9</sup> all of which demand allocation and protection/designation of land for these purposes. This requires effective coordination at the local, regional, and state levels, as well as innovative approaches designed to maximize access to locally grown and produced food, affordability of food, and awareness of healthy eating.

Across the United States, land use regulation and decision making is left to municipal governments, and these local policies are often one of the most important factors contributing to food production potential.<sup>10</sup> Although other policies and regulatory systems are also integral to comprehensive regional foodshed development,<sup>11</sup> this Article focuses on how existing land use plans and regulations can promote healthier and more sustainable communities through the foodshed movement. In particular, this Article discusses specific land use strategies that can be implemented in urban and suburban settings to facilitate local and regional food production and distribution that go beyond farmland preservation strategies and examine, among other things, smaller-scale community gardens, residential agricultural uses and farmers markets.

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drivers of food system change [because] for economic reasons, change will come from consumer demand.”); Neil D. Hamilton, *Putting a Face on Our Food: How State and Local Food Policies Can Promote the New Agriculture*, 7 DRAKE J. OF AG. L. 407, 417-18 (2002) (arguing that state and local regulations are especially important for regional food policies); see also Pollan, *supra* note 2 (discussing the political dynamics that have stalled meaningful reforms of federal food and agriculture policies).

8. See Urban Design Lab Presentation, *supra* note 7, at 17; see also Policy Guide on Community and Regional Food Planning, *supra* note 1, at 8.

9. AM. PLANNING ASS’N, FOOD SYSTEMS PLANNING, PAS Quicknotes No. 24, 1 (2010), <http://www.planning.org/pas/quicknotes/pdf/QN24.pdf>.

10. Urban Design Lab Presentation, *supra* note 7, at 18 (“[O]ne of the primary factors in determining production potential is existing land use.”).

11. *Id.* at 20 (“Production is just one piece of the food system puzzle. We know from our preliminary research that the primary barrier to developing a more regionalized system is the existing transportation and distribution infrastructure.”).

Part I provides an overview of the benefits and challenges associated with foodshed planning and strengthened regional food markets. Part II focuses on local land use strategies to establish and promote regional foodsheds including the establishment of policy advisory committees, the use of comprehensive planning and the implementation of a variety of land use regulatory techniques designed to encourage and support sustainable food systems. Part III briefly discusses a number of other strategies that can be employed at the local government level to support activities related to regional foodsheds.

## I. BENEFITS AND CHALLENGES WITH REGIONAL FOODSHED PLANNING

### *A. Benefits to Regional Foodshed Planning*

There are many neighborhood and community-based benefits derived from regional foodshed planning, including environmental, economic and health impacts. The intergovernmental dynamics involved in training, education, planning, development and implementation of local food policies can also serve as a conduit to bring various constituencies together, including local governments, school districts, institutions of higher education, community activists, the business community (including locally-based entrepreneurs), and local health professionals. The following sections present a brief discussion of several of the benefits of regional foodshed planning.

#### 1. Environmental

Increasing reliance on regional food production systems carries a number of environmental benefits. Smaller local farms may have fewer environmental impacts from pesticides, fertilizers, and wastes than industrialized agricultural operations that produce commodity crops.<sup>12</sup> Smaller local farms also help preserve undeveloped land, and transportation needs are lowered within regional systems, bringing concomitant decreases in traffic, automotive pollution, and greenhouse gas emissions.<sup>13</sup> Further, in dense urban areas, rooftop gardens and community gardens cover asphalt, impermeable

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12. See, e.g., Kathryn A. Peters, Note, *Creating a Sustainable Urban Agriculture Revolution*, 25 J. ENVTL. L. & LITIG. 203, 207-11 (2010).

13. *Id.* at 220-21; Policy Guide on Community and Regional Food Planning, *supra* note 1, at 5 (discussing energy consumption in the food system).

surfaces, and sometimes otherwise blighted areas with vegetation, which can alleviate storm water runoff problems and heat island effects.<sup>14</sup> Other more intangible environmental benefits of urban agriculture include beautification and an augmented sense of community.<sup>15</sup>

## 2. Economic

In 2009, U.S. households spent more than \$526 billion on food produced outside of the home,<sup>16</sup> indicating a significant economic market for locally grown and processed food. Local sourcing can supply a significant amount of food. A recent Michigan State University study posits that by converting vacant urban land to a host of urban agriculture related uses (e.g., farms, community gardens and storage facilities), Detroit residents could be supplied with seventy-six percent of their vegetables and more than forty percent of their fruits.<sup>17</sup> Although there may be a lack of focus and understanding concerning the relationship between the local economy and food systems,<sup>18</sup> strong regional food markets economically support labor-intensive small and medium sized farms, which have been overtaken in the past several decades by mechanized, large-scale industrial agricultural operations.<sup>19</sup> Local economies are also reinforced as the

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14. See, e.g., NOHAD A. TOULAN SCH. OF URB. STUD. & PLAN., PORTLAND STATE UNIV., *THE DIGGABLE CITY: MAKING URBAN AGRICULTURE A PLANNING PRIORITY 37* (2005), available at <http://www.portlandonline.com/bps/index.cfm?c=42793&a=122590> (hereinafter *THE DIGGABLE CITY*) (“Increasing/preserving pervious surfaces in the city (gardens, farms, etc.) helps improve water quality through stormwater management.”).

15. Peters, *supra* note 12, at 215.

16. HODGSON ET AL., *supra* note 1, at 84 (citing to the U.S. Department of Agriculture’s Economic Research Service).

17. KATHRYN COLASANTI, CHARLOTTE LITJENS & MICHAEL HAMM, THE C.S. MOTT GROUP FOR SUSTAINABLE FOOD SYS., MICHIGAN STATE UNIV., *GROWING FOOD IN THE CITY: THE PRODUCTION POTENTIAL OF DETROIT’S VACANT LAND 5* (2010), <http://www.mottgroup.msu.edu/uploads/files/59/Growing%20Food%20in%20the%20City%20%20Colasanti%20Litjens%20Hamm.pdf>.

18. JOEL RUSSELL, AM. PLANNING ASS’N, PAS Memo (March/April 2011), *LOCAL AGRICULTURAL FOOD PRESERVATION: MAKING THE FOOD SYSTEM CONNECTION*, [http://www.joelrussell.com/articles/11\\_03\\_04\\_Russell\\_%20PASMemo\\_Natural\\_Resource\\_Protection\\_Zoning.pdf](http://www.joelrussell.com/articles/11_03_04_Russell_%20PASMemo_Natural_Resource_Protection_Zoning.pdf).

19. See, e.g., Policy Guide on Community and Regional Food Planning, *supra* note 1, at 9 (discussing consolidation and vertical integration in the food sector and the negative community impacts it causes); Dan Voorhis, *Proposed Regulations*

foodshed movement spurs the need for local food processing facilities and agri-businesses providing supplies, equipment and services (such as repairs).<sup>20</sup> In addition to job creation and economic development, regional food markets reduce transportation costs and provide some insulation from volatility in the global food market.<sup>21</sup> Furthermore, regional markets for production and processing can decrease costs for healthy foods,<sup>22</sup> which can in turn produce economic benefits by preventing health care costs from diseases associated with poor diet and obesity.<sup>23</sup>

### 3. Health

Health benefits are one of the most important reasons for supporting regional foodsheds, as strong regional agricultural markets make produce and whole foods more accessible and affordable.<sup>24</sup> Regional foodshed models also encourage non-traditional food distribution mechanisms, such as community gardens, farmers markets, and mobile markets, which can bring healthy foods to

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*Divide Meat Industry*, WICHITA EAGLE (Mar. 24, 2011), available at <http://www.kansas.com/2011/03/24/1776857/proposed-regulations-divide-meat.html> (discussing consolidation in the meat packing industry and the negative effect it has had on smaller farmers).

20. RUSSELL, *supra* note 18.

21. See A. Bryan Endres & Jody M. Endres, *Homeland Security Planning: What Victory Gardens and Fidel Castro Can Teach Us in Preparing for Food Crises in the United States*, 64 *Food & Drug L.J.* 405, 405-06 (2009) (“[c]onsolidation and centralization in American production, distribution and processing systems has made the U.S. food system vulnerable to both accidental and intentional disruption. Confinement of large numbers of livestock at long-distances from processing centers increases animals’ susceptibility to disease, and creates greater opportunity for its spread.”); see also *Urban Agriculture: Confirming Viable Scenarios for Production*, URBAN DESIGN LAB (May 5, 2011, 2:00:05 PM), [http://www.urbandesignlab.columbia.edu/?pid=urban\\_agriculture](http://www.urbandesignlab.columbia.edu/?pid=urban_agriculture).

22. *Curbing Childhood Obesity: Searching for Comprehensive Solutions*, URBAN DESIGN LAB (MAY 5, 2011 2:10:47 PM), <http://urbandesignlab.columbia.edu/?pid=obesity> [hereinafter *Curbing Childhood Obesity*]; Dizikes, *supra* note 4.

23. See Pollan, *Big Food vs. Big Insurance*, *supra* note 2, at A43; Dizikes, *supra* note 4 (“Another Iowa study suggests that food production incurs additional costs of \$6 billion to \$16 billion when factors such as energy use and health care are included.”).

24. See *Curbing Childhood Obesity*, *supra* note 22; see Pollan, *Big Food vs. Big Insurance*, *supra* note 2, at A43.

underserved urban and rural communities.<sup>25</sup> The health benefits that can be obtained through stronger regional food markets are so extensive that researchers at Columbia University's Urban Design Lab have advocated a regional foodshed model as one of the most promising strategies for curbing childhood obesity.<sup>26</sup> The city health department in Minneapolis has also focused on local food systems and urban agriculture in recognition of the strong linkages between healthy planning and locally produced food.<sup>27</sup>

### *B. Challenges to Regional Foodshed Planning*

Although many local governments are examining food policies and developing strategies to ensure the availability of fresh locally grown food, the very definition of regional foodsheds requires the recognition of areas larger than the arbitrary boundary lines that separate municipal jurisdictions. Since land use planning and regulation is largely a municipal function, achieving intergovernmental coordination can be a challenge. Furthermore, the political dynamics of regulatory control at different levels of government can present difficulties for the viability of regional foodsheds. Development pressures on land for uses other than agriculture continue,<sup>28</sup> and complaints from residential neighbors may arise when adjacent land is used for certain types of agricultural purposes. These challenges are briefly discussed below.

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25. *Curbing Childhood Obesity*, *supra* note 22; see Urban Design Lab Presentation, *supra* note 7, at 17-18.

26. *Curbing Childhood Obesity*, *supra* note 22; Dizikes, *supra* note 4.

27. HODGSON ET AL., *supra* note 1, at 87-90 (explaining, for example, that as a result of the Minneapolis emphasis on local food, the Minneapolis-St. Paul area is home to the largest concentration of natural food cooperatives in the country).

28. See, e.g., Michele S. Byers, *New Jersey is Important to Philadelphia's food supply*, NEW JERSEY NEWSROOM (Feb. 20, 2011, 3:27 PM), <http://www.newjerseynewsroom.com/science-updates/new-jersey-is-important-to-philadelphias-food-supply> ("Farmland in the foodshed — the area within a 100-mile radius of downtown Philadelphia — is threatened by a burgeoning population and spreading residential and commercial development. Market forces, like cheap food prices, drive farm profits down, making it tempting for farmers to sell their land."); Policy Guide on Community and Regional Food Planning, *supra* note 1, at 3 ("Although agriculture is America's dominant land use, with nearly 1 billion acres of land in agricultural use, farmland in metropolitan areas is disappearing at a rapid pace.").

Even within large urban jurisdictions, such as New York City, regulations and red tape may prove to be barriers for promoting various local or urban food policies. For example, a recent report issued by Manhattan Borough President Scott Stringer indicates that decentralized and costly permitting processes, the cost of insurance for participants in farmers' markets, and inadequate infrastructure present significant obstacles to urban farmers' markets.<sup>29</sup>

### 1. Intergovernmental Coordination

Depending on the scale of the foodshed, one of the most significant obstacles to regional foodshed planning is coordination among dozens or even hundreds of local governments, as well as state and federal agencies, which may have competing or conflicting land use goals.<sup>30</sup> The tension between regional land use planning and purely local control has a long and largely unresolved history.<sup>31</sup> In addition to issues of control, cooperation can also be inhibited by a lack of uniformity among standards and regulations. While voluntary intergovernmental agreements, similar to watershed management agreements, can be a solution,<sup>32</sup> absent a directive from the state, the

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29. See generally SCOTT STRINGER, OFFICE OF THE MANHATTAN BOROUGH PRESIDENT, RED TAPE, GREEN VEGETABLES: A PLAN TO IMPROVE NEW YORK CITY'S COMMUNITY BASED FARMERS MARKETS (2011), available at <http://www.libertycontrol.net/uploads/mbpo/RTGVRReport.pdf> (offering a number of recommendations for reform including: eliminating daily permit fees in low-income areas; simplifying and clarifying the regulatory process; creating standard procedures for farmers market parking; and increasing access to urban land for farming).

30. See generally Laurie Reynolds, *Intergovernmental Cooperation, Metropolitan Equity, and the New Regionalism*, 78 WASH. L. REV. 93 (2003) (discussing localism, regionalism, and New Regionalism, and how different intergovernmental dynamics affect regional policy issues).

31. See generally Patricia E. Salkin, *Regional Planning in New York State: A State Rich in National Models, Yet Weak in Overall Statewide Planning Coordination*, 13 PACE L. REV. 505 (1993) (discussing the history of regional planning policies in New York); Patricia E. Salkin, *The Politics of Land Use Reform in New York: Challenges and Opportunities*, 73 ST. JOHN'S L. REV. 1041, 1046-54 (1999) (discussing various regional planning programs in New York).

32. Urban Design Lab Presentation, *supra* note 7, at 19 (using watershed agreements as an analogy); *Watershed Protection: Regulatory Background*, N.Y.C. DEP'T OF ENVTL. PROT., [http://www.nyc.gov/html/dep/html/watershed\\_protection/regulatory\\_background.shtml](http://www.nyc.gov/html/dep/html/watershed_protection/regulatory_background.shtml) (last visited May 28, 2011) (describing the New York City watershed agreement).

political will must exist at the same time from a number of adjacent jurisdictions. And although regional planning can enhance cooperation across political boundaries, this cooperation requires either mandated or incentivized voluntary action. To date, much of the discussion of regional foodsheds depicts boundary maps illustrating areas where existing agricultural production is currently occurring and the areas in relative proximity that can benefit from, or be served by, such activities. The maps typically do not indicate whether the actual planning and regulations over the region exist on a larger than local level. This is a major challenge for planners and advocates attempting to plan on a regional or interjurisdictional scale.

## 2. State and Federal Influence and Preemption

Just as intermunicipal coordination is necessary for successful regional foodsheds, state and federal government cooperation may also be needed. Local governments may need statutory enabling legislation to implement certain foodshed policies, and in some cases state and federal legislation may preempt local attempts at regulation. The processing and sale of meat, poultry, and dairy products, for example, is heavily regulated by the United States Department of Agriculture and state agency equivalents.<sup>33</sup> Additionally, federal and state tax policies may significantly affect whether the use of certain lands for food production is economically viable.<sup>34</sup>

## 3. Economic and Development Pressures

The loss of farmland to residential and commercial development is a constant challenge for regional food markets that rely on small and

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33. See Patricia Salkin, *Feeding the Locavores, One Chicken at a Time: Regulating Backyard Chickens*, 34 ZONING & PLANNING LAW REPORT 1, 3 (2011).

34. Most states offer tax abatements/exemptions for agricultural land. See *Tax Treatment of Agricultural Property*, LINCOLN INST. OF LAND POLICY, [http://www.lincolninst.edu/subcenters/significant-features-property-tax/Report\\_agricultural.aspx](http://www.lincolninst.edu/subcenters/significant-features-property-tax/Report_agricultural.aspx) (last visited May 16, 2011) (providing state by state information on agricultural tax programs). Significant federal tax incentives are also available for land with agricultural easements. See, e.g., Robert Knox, *Perpetual Beauty: Tax Benefits May Spur More to Protect Land*, BOSTON GLOBE, Mar. 3, 2011, available at [http://articles.boston.com/2011-03-03/realestate/29336449\\_1\\_conservation-restriction-land-trust-alliance-land-conservation-groups](http://articles.boston.com/2011-03-03/realestate/29336449_1_conservation-restriction-land-trust-alliance-land-conservation-groups).

medium sized agricultural operations.<sup>35</sup> These farms have higher labor costs than large-scale industrial farms,<sup>36</sup> and they are often “land rich but cash poor,” making them susceptible to economic fluctuations and unexpected costs.<sup>37</sup> Local governments can mitigate development pressures through a variety of regulatory measures, such as subdivision restrictions, impact fees, and restrictive agricultural zoning,<sup>38</sup> but depending upon the circumstances, these regulations could be challenged as uncompensated takings.<sup>39</sup> Other regulations, such as transfer of development rights programs and adequate public facilities ordinances, may be difficult to implement or potentially counterproductive.<sup>40</sup> Additionally, while local governments can purchase conservation easements or condemn agricultural land to

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35. See, e.g., Byers, *supra* note 28 (“Farmland in the foodshed — the area within a 100-mile radius of downtown Philadelphia — is threatened by a burgeoning population and spreading residential and commercial development. Market forces, like cheap food prices, drive farm profits down, making it tempting for farmers to sell their land.”); Policy Guide on Community and Regional Food Planning, *supra* note 1, at 3 (“Although agriculture is America’s dominant land use, with nearly 1 billion acres of land in agricultural use, farmland in metropolitan areas is disappearing at a rapid pace.”).

36. See Urban Design Lab Presentation, *supra* note 7, at 3.

37. See, e.g., *Farms May Get Estate Tax Help – Delmarva Now*, BETTER LISTEN (Mar. 12, 2011), <http://www.delmarvanow.com/article/20110312/NEWS01/103120358/Farms-may-get-estate-tax-help> (explaining that many families are forced to sell their farms to developers because they do not have the liquid assets necessary to pay estate taxes).

38. See generally PATRICIA E. SALKIN, *AMERICAN LAW OF ZONING*, ch. 33 (5th ed. 2011).

39. See, e.g., *Wiebbecke v. Benton Cnty. Bd. of Supervisors*, 756 N.W.2d 48 (Iowa Ct. App. 2008) (holding that the agricultural zoning designation was not a taking); *In re Petition of Dolington Land Grp.*, 839 A.2d 1021 (Pa. 2003) (holding that conservation zoning did not unreasonably restrict property owners’ right to develop their land); *Gardner v. N.J. Pinelands Com’n*, 593 A.2d 251 (N.J. 1991) (holding that restrictions on residential development in protected farmland area were not a taking).

40. See AM. PLANNING ASS’N, *GROWING SMART LEGISLATIVE GUIDEBOOK: MODEL STATUTES FOR PLANNING AND THE MANAGEMENT OF CHANGE* 8-169 (Stuart Meck ed., 2002), available at <http://www.planning.org/growingSMART/guidebook/index.htm> [hereinafter LEGISLATIVE GUIDEBOOK] (explaining that adequate public facilities ordinances may be ineffective tools to direct growth to urban areas because, if “coupled with inadequate state funding for infrastructure, [they] may encourage development in rural and exurban areas where excess road capacity exists”). *Id.* at 9-57 (discussing the market factors that may inhibit transfer of development rights programs).

prevent development,<sup>41</sup> these measures are expensive and often prohibitive.<sup>42</sup>

#### 4. Processing and Distribution

Local governments can use zoning to encourage certain land uses, but actual development generally depends on private investment, and a lack of such investment can result in gaps in the foodshed. In some regions, for example, slaughtering and processing facilities are unavailable or inadequate.<sup>43</sup> Food deserts<sup>44</sup> can also arise, even in rural agricultural areas, when local consumers have poor access to grocery stores and other retailers that sell healthy foods.

## II. LOCAL STRATEGIES TO ESTABLISH AND ENCOURAGE REGIONAL FOODSHEDS

### A. Food Policy Councils and Task Forces

Although local governments have a broad array of tools to regulate and shape regional food production and distribution systems, food policy has only recently become a serious topic for city planners and other officials.<sup>45</sup> For this reason, local governments should consider creating a food policy council or task force to help evaluate possible strategies and goals for improving the foodshed.<sup>46</sup> A food policy council can help to conduct a healthy municipality check-up, looking

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41. In New York, farmland preservation has been held to be a public purpose sufficient to justify the use of eminent domain. *Aspen Creek Estates, Ltd. v. Brookhaven*, 904 N.E.2d 816, 816 (N.Y. 2009).

42. See LEGISLATIVE GUIDEBOOK, *supra* note 40, at 9-64.

43. See, e.g., Ann Monroe, *The Slaughterhouse Problem*, EDIBLE MANHATTAN (Nov. 2, 2009), [http://www.ediblemanhattan.com/20091102/the\\_slaughterhouse\\_problem/](http://www.ediblemanhattan.com/20091102/the_slaughterhouse_problem/).

44. *CDC Features, Food Deserts*, CTRS. FOR DISEASE CONTROL & PREVENTION (CDC), <http://www.cdc.gov/Features/FoodDeserts/> (last visited May 18, 2011) (according to the U.S. Centers for Disease Control, "Food deserts are areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet").

45. See Policy Guide on Community and Regional Food Planning, *supra* note 1, at 1 (explaining why food policy has not received attention from planners).

46. See, e.g., Nina Mukherji & Alfonso Morales, *Zoning for Urban Agriculture*, 3 AM. PLANNING ASS'N - ZONING PRACTICE 3 (2010), available at <http://www.planning.org/zoningpractice/2010/pdf/mar.pdf> (discussing food policy councils).

at existing comprehensive plans, zoning regulations, intermunicipal agreements, and other local laws to determine how policies can be created or modified to support the foodshed. Dane County, Wisconsin, for example, created a food council in 2005 to develop educational programs, conduct research and gather data, recommend policies for increasing municipal purchases of local foods, support direct marketing opportunities for local producers, and assist in the development of local food projects.<sup>47</sup>

Another example is the Oakland, California, Food Policy Council, which released its first report in 2010 and identified four main goals: (1) making healthy food available and accessible to every resident; (2) building a healthy local economy, including locally-owned food businesses and food sector jobs with fair wages and working conditions; (3) cultivating a healthy environment with ecologically sound agricultural practices; and (4) educating residents about the food systems and healthy food choices.<sup>48</sup> The council's recommendations touched on various city policies, such as zoning for urban agriculture, procurement policies supporting local agriculture, food assistance programs, composting and recycling opportunities, financing assistance for food programs in underserved communities, and restrictions on pesticides and genetically modified crops.<sup>49</sup>

The food policy council in Portland/Multnomah County, Oregon, is a citizen-based advisory group that works with the Bureau of Planning and Sustainability.<sup>50</sup> In 2004, the city passed a resolution to conduct an inventory of municipal property suitable for urban agricultural uses, and the council worked on the project along with a team of graduate students and city officials.<sup>51</sup> The initial study identified more than 400 properties, but additional screening and comparison with existing park and master plans was undertaken in 2006 and demonstrated that relatively little city-owned land was

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47. *History*, DANE CNTY. FOOD COUNCIL, <http://www.countyofdane.com/foodcouncil/history.aspx> (last visited May 18, 2011).

48. OAKLAND FOOD POLICY COUNCIL, *TRANSFORMING THE OAKLAND FOOD SYSTEM: A PLAN FOR ACTION 56* (2010), available at [http://www.oaklandfood.org/media/AA/AD/oaklandfood-org/downloads/105491/OFPC\\_2010\\_plan\\_for\\_action\\_FINAL.pdf](http://www.oaklandfood.org/media/AA/AD/oaklandfood-org/downloads/105491/OFPC_2010_plan_for_action_FINAL.pdf).

49. *Id.* at 6.

50. *Portland Multnomah Food Policy Council*, BUREAU OF PLANNING & SUSTAINABILITY, CITY OF PORTLAND, OR., <http://www.portlandonline.com/bps/index.cfm?c=42290> (last visited May 18, 2011).

51. THE DIGGABLE CITY, *supra* note 14, at 11.

available for community farms and other agricultural uses.<sup>52</sup> Most of the vacant properties identified in the original inventory were either serving a particular municipal purpose or master planned for other uses, and the agencies in charge of these parcels were unwilling to consider short-term agricultural uses.<sup>53</sup>

### *B. Comprehensive Land Use Planning*

While a food policy council can be created to explore food policies and strategies to support regional food systems, these issues should also be incorporated into the comprehensive planning process. Most state statutes require that zoning regulations be developed and implemented in accordance with a comprehensive land use plan (sometimes called a “general plan” or “master plan”).<sup>54</sup> Where food policy councils have been created, they have often recommended that food policies should be incorporated into the municipality’s comprehensive plan.<sup>55</sup>

Some local comprehensive plans contain sections (also called “elements”)<sup>56</sup> that touch on regional food policies, such as agriculture, sustainability, or economic development elements.<sup>57</sup> For example, the Marin County, California plan supports “the production and marketing of healthy, fresh, locally grown food.”<sup>58</sup> The county’s natural systems and agriculture element discusses the area’s historical and existing agricultural activities and trends, as well as existing land use regulations covering the county’s agricultural land base.<sup>59</sup> The

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52. PORTLAND/MULTNOMAH FOOD POLICY COUNCIL, *THE DIGGABLE CITY, PHASE III: IMPLEMENTATION STRATEGIES AND RECOMMENDATIONS*, at 2-3 (July 2007), available at <http://www.portlandonline.com/bps/index.cfm?c=42793&a=171174>.

53. *Id.* at 10.

54. Typically, a comprehensive plan represents an articulation of the shared vision for the future growth and development of a municipality. LEGISLATIVE GUIDEBOOK, *supra* note 40, at 7-76.

55. *See, e.g.*, PORTLAND/MULTNOMAH FOOD POLICY COUNCIL, *supra* note 52, at 11.

56. *See* LEGISLATIVE GUIDEBOOK, *supra* note 40, at 7-61 (discussing the elements in model comprehensive plan statutes).

57. *See* Mukherji & Morales, *supra* note 46, at 3-4 (discussing comprehensive plans that cover urban agriculture).

58. MARIN CNTY. BD. OF SUPERVISORS, *MARIN COUNTYWIDE PLAN*, 1-5 (2007), available at [http://www.co.marin.ca.us/depts/cd/main/fm/cwpcodes/CWP\\_CD2.pdf](http://www.co.marin.ca.us/depts/cd/main/fm/cwpcodes/CWP_CD2.pdf).

59. *See id.* at 2-149 – 2-176.

plan recognizes the importance of sustainable “agroecosystems,” but acknowledges that low profit margins and residential development threaten the viability of agricultural operations.<sup>60</sup> A variety of policies and strategies are set forth to protect agricultural uses, including specific recommendations to support local, organic, and grass-fed agriculture, small-scale diversification, local processing, distribution, and marketing, and public education about food security.<sup>61</sup> The plan also acknowledges that increasing regional food production reduces transportation-related greenhouse gases, supports the local economy, and provides health benefits through the increased access to locally available, fresh and organic food.<sup>62</sup>

Baltimore’s comprehensive plan includes a number of strategies that reflect its more urban character. It specifies, for example, that all residents should be within 1.5 miles of a quality grocery store and notes that its “Grocery Store Initiative” has attracted at least nineteen supermarkets to the city since 2000.<sup>63</sup> The plan also suggests the creation of a Community Garden Land Trust to manage community gardens and help residents convert vacant lots to gardens and parks.<sup>64</sup> The City of Benicia, California, General Plan recommends using city property for fruit and vegetable gardens as part of its Community Health and Safety element.<sup>65</sup> Seattle’s comprehensive plan also includes support for community garden development in several neighborhoods. In Urban Village districts, the Seattle plan calls for the expansion of community garden opportunities through increased interagency and intergovernmental cooperation, and through the use of surplus city land.<sup>66</sup> Tree planting on public right of ways is

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60. *Id.* at 2-150, 2-156.

61. *See id.* at 2-165 – 2-170.

62. *See id.* at 2-169.

63. CITY OF BALTIMORE, COMPREHENSIVE MASTER PLAN 83 (2009), available at <http://www.baltimorecity.gov/LinkClick.aspx?fileticket=mFcf3qGalWc%3d&tabid=372&mid=814>.

64. *See id.* at 77.

65. *See* CITY OF BENICIA, CAL., GENERAL PLAN 144 (1999), available at <http://www.ci.benicia.ca.us/vertical/Sites/{3436CBED-6A58-4FEF-BFDF-5F9331215932}/uploads/{78274C76-8FDB-4346-B7D0-956673A4C6BA}.PDF>.

66. *See* CITY OF SEATTLE DEPT. OF PLANNING & DEVELOPMENT, CITY OF SEATTLE COMPREHENSIVE PLAN 1.27 (2005), available at [http://www.seattle.gov/dpd/cms/groups/pan/@pan/@plan/@proj/documents/web\\_informational/dpdp020401.pdf](http://www.seattle.gov/dpd/cms/groups/pan/@pan/@plan/@proj/documents/web_informational/dpdp020401.pdf). According to the plan, urban village districts include areas with dense urban centers, industrial centers, hub communities, and residential villages. *Id.* at 1.3-1.4.

suggested for the Crown Hill district,<sup>67</sup> and a goal of one community garden for every 2,500 households is suggested for the Denny Triangle village.<sup>68</sup> The Seattle plan also provides general support for community gardens in the Cultural Resources element.<sup>69</sup>

Because foodsheds encompass large geographic areas, food policy is an ideal topic for regional planning organizations. The Chicago Metropolitan Agency for Planning included a chapter on promoting sustainable local foods in its GO TO 2040 plan. The plan suggests both preserving agricultural land and promoting urban agricultural uses, such as backyard gardens, community gardens, greenhouses, green roofs, aquaponics, and small-scale commercial sites.<sup>70</sup> It recommends streamlining and simplifying the process for acquiring and converting vacant lots to agricultural uses, and ensuring that site maintenance regulations are not overly restrictive.<sup>71</sup> It also sets a goal of eliminating food deserts by 2040, and to meet this goal the plan supports programs for farmers markets, farm carts and stands, fresh food delivery trucks, food cooperatives, direct sales from community gardens, and other alternative retail options.<sup>72</sup> The Delaware Valley Regional Planning Commission, which covers the greater Philadelphia region, also prepared a comprehensive food system plan, which incorporates six core principles: farming and sustainable agriculture; ecological stewardship and conservation; economic development; health; fairness; and collaboration.<sup>73</sup>

A recent report focusing on the connection between the food system and local agricultural preservation notes that while very few comprehensive plans directly address food systems, momentum is changing as evidenced by the growing interest among the newer generation of planners to become “food system planners.”<sup>74</sup> This

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67. *See id.* at 8.40.

68. *Id.* at 8.82.

69. *See id.* at 10.4.

70. *SEE* CHI. METRO. AGENCY FOR PLANNING, GO TO 2040 COMPREHENSIVE PLAN 150 (2010), *available at* <http://www.cmap.illinois.gov/documents/20583/1dad6286-2f67-460e-9eed-30950d822daa> (full plan available for download at <http://www.cmap.illinois.gov/2040/download-the-full-plan>).

71. *See id.* at 150.

72. *See id.* at 151.

73. *SEE* DEL. VALLEY REG’L PLANNING COMM’N, EATING HERE: GREATER PHILADELPHIA’S FOOD SYSTEM PLAN 7 (2011), *available at* <http://www.dvrpc.org/reports/10063.pdf>.

74. RUSSELL, *supra* note 18.

report asserts that the interest in incorporating food systems into community planning will result in planning departments adding food system planners to their staff, and comprehensive plans that will contain sections on food systems making a connection between farms, food, markets and consumers.<sup>75</sup>

### *C. Zoning and Land Use Regulations to Promote Foodshed Development*

Depending on the scale of the geographic area, foodshed development implicates a number of different land planning and regulatory techniques. For example, policies and techniques may focus on regional aspects of foodshed planning designed to protect large tracts of farmland for agricultural production. This approach requires an integrated set of tools including exclusive agricultural zoning districts (that includes agri-business and farm dwellings), and land preservation strategies such as transfer of development rights, purchase of development rights and conservation easements. Rather than focusing on the larger scale effort of planning for interjurisdictional scale regional foodsheds, this section explores the land use regulatory tools that can promote smaller scale urban and suburban foodsheds that contribute to overall regional foodsheds.

#### 1. Zoning to Permit Urban Agriculture

While exclusive agricultural zoning is typically associated with rural areas, suburban and urban communities may permit certain types of agricultural uses in various zoning districts to permit community gardens, farmers markets and the growing or raising of agricultural products and livestock.<sup>76</sup> These uses may be permitted as-of-right or subject to special use permit. The Portland Diggable City Project, for example, found that although agriculture is permitted in commercial zones, many of those districts prohibit “exterior work activities.”<sup>77</sup> It also concluded that the definition of agriculture in the zoning code does not adequately cover small-scale agriculture, and suggested a more specific definition for urban

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75. See *id.* at 4-5.

76. See generally Mukherji & Morales, *supra* note 46.

77. THE DIGGABLE CITY, *supra* note 14, at 40.

agricultural uses.<sup>78</sup> Kansas City, Missouri, responded to similar concerns in its urban agriculture ordinance, which includes new, more permissive zoning designations for home gardens, community gardens, and community supported agriculture.<sup>79</sup> Cleveland also enacted an urban agriculture ordinance to clarify the restrictions on agricultural uses in residential zones, including limitations on fences, farm stands, and signs.<sup>80</sup>

Some cities have created special zoning designations for community gardens, both to protect community gardens from development and to regulate them.<sup>81</sup> Community gardens are an important component of the regional foodshed because they offer many benefits, including supplementing food budgets and generating modest revenues for urban farmers who are able to connect with urban consumers.<sup>82</sup> Urban consumers, in turn, benefit from affordable access to fresher and healthier fruits and vegetables.<sup>83</sup> Municipalities opt for different regulatory approaches for community gardens, however. For example, in Glendale, California, community gardens run by homeowners associations are permitted as of right in all residential districts, and community gardens operated by non-profits are permitted as of right in all commercial and mixed use districts.<sup>84</sup>

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78. *See id.*; *see also* Mukherji & Morales, *supra* note 46, at 5 (providing guidance on how to define agricultural uses based on their extent and intensity).

79. KANSAS CITY, MO., ORDINANCE No. 100299, § 88-312-02C (2009), available at <http://www.kcmo.org/idc/groups/cityplanningdevelopmentdiv/documents/cityplanninganddevelopment/100299.pdf>.

80. CLEVELAND, OHIO, ZONING CODE § 337.25 (2010), available at <http://planning.city.cleveland.oh.us/zoning/pdf/337-02%20UrbanAgricultureinResidential.pdf>.

81. *See, e.g.*, BOSTON, MASS, ZONING CODE, art. 33 (2011), available at <http://www.bostonredevelopmentauthority.org/pdf/ZoningCode/Article33.pdf>; CLEVELAND, OH, ZONING CODE ch. 336.02(a) (2007), available at [http://www.mayorsinnovation.org/pdf/Cleveland\\_CG\\_zoning\\_ord.pdf](http://www.mayorsinnovation.org/pdf/Cleveland_CG_zoning_ord.pdf); *Community Gardens*, CHI. PARK DIST., <http://www.cpdit01.com/resources/can.community-gardens/> (last updated Jan. 12, 2011 6:10:49 PM). *See generally* NAT'L POLICY & LEGAL ANALYSIS NETWORK TO PREVENT CHILDHOOD OBESITY, PUB. HEALTH LAW & POLICY, ESTABLISHING LAND USE PROTECTIONS FOR COMMUNITY GARDENS (2010), available at [http://www.nplanonline.org/sites/phlpnet.org/files/CommunityGardenPolicy\\_FINAL\\_Updated\\_100608.pdf](http://www.nplanonline.org/sites/phlpnet.org/files/CommunityGardenPolicy_FINAL_Updated_100608.pdf).

82. HODGSON ET AL., *supra* note 1, at 3.

83. *Id.*

84. *See* GLENDALE, CAL., ZONING CODE, tit. 30. chs. 10.11, 30.12, 30.14 (2010), available at <http://www.ci.glendale.ca.us/gmc/30.asp>.

In Denver, urban gardens (including accessory structures) are permitted as primary uses in most districts subject to special use permit review and accessory gardens are permitted in residential and most nonresidential districts subject to specific standards.<sup>85</sup> The zoning ordinance in Waco, Texas permits community gardens in any zoning district as a special use, and further allows for limited on-site sales.<sup>86</sup>

However, community gardens are often located on plots owned by other parties, which leaves them susceptible to development.<sup>87</sup> Indeed, one of the first community garden ordinances in the United States was enacted in Cleveland after developers removed a garden in order to build a Target store.<sup>88</sup> While designation as an “urban garden district” does not prevent development, community gardens in Cleveland now must be rezoned before the use can be changed, a process that requires public involvement.<sup>89</sup> Because community gardens can create traffic, odors, and other negative impacts, community garden regulations may also include setbacks, fencing requirements, and other building regulations.<sup>90</sup> Some ordinances also

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85. DENVER, COLO., ZONING CODE, art. 11, §§ 11.6.1, 11.8.4, 11.10.9 (2010), <http://denvergov.org/cpd/Zoning/DenverZoningCode/tabid/432507/Default.aspx>.

86. WACO, TEX., CODE OF ORDINANCES, ch. 28, art. V, div. 7 (2005), available at [http://search.municode.com/html/11666/level4/PTIICOOR\\_CH28ZO\\_ARTVSUDIRE\\_DIV7COGA.html](http://search.municode.com/html/11666/level4/PTIICOOR_CH28ZO_ARTVSUDIRE_DIV7COGA.html).

87. See, e.g., Jane E. Schukoske, *Community Development Through Gardening: State and Local Policies Transforming Urban Open Space*, 3 LEGISLATION & PUB. POL’Y 351 (2000), 365-67, available at [http://www.community-wealth.org/\\_pdfs/articles-publications/urban-ag/article-schukoske.pdf](http://www.community-wealth.org/_pdfs/articles-publications/urban-ag/article-schukoske.pdf) (explaining that community gardens on public land may have short land leases, while gardeners using private lots without permission face legal violations and difficulty in obtaining water, insurance, and other services; also explaining, however, that obtaining title may be costly and time consuming for community garden organizations); GROWN NYC, COMMUNITY GARDEN SURVEY: RESULTS 2009/2010 11(2010), available at [http://www.greenthumbnyc.org/pdf/GrowNYC\\_community\\_garden\\_report.pdf](http://www.greenthumbnyc.org/pdf/GrowNYC_community_garden_report.pdf) (discussing land ownership).

88. See Dustin Brady, *Councilman introduces first zoning designation for community gardens*, PLAIN PRESS (Nov. 2007), available at <http://www.nhlink.net/plainpress/html/stories/2007-09/councilmanintroducesnewzoning.htm>.

89. *Id.*

90. See, e.g., CLEVELAND, OHIO, ZONING CODE ch. 336.04 (2011), available at [http://www.mayorsinnovation.org/pdf/Cleveland\\_CG\\_zoning\\_ord.pdf](http://www.mayorsinnovation.org/pdf/Cleveland_CG_zoning_ord.pdf); FRANKLIN COUNTY, OHIO, ZONING RESOLUTION § 115.046, § 115.066(b) (2010), available at <http://www.franklincountyohio.gov/commissioners/edp/zoning/ZoningResolutionUpdated6.9.10.pdf>.

impose restrictions on sales, hours of operation, and garden management.<sup>91</sup> In Portland, for example, community gardeners are prohibited from selling produce on site in order to limit competition with farmers markets and existing businesses.<sup>92</sup>

## 2. Farm Stands, Farmers Markets, Community Supported Agriculture, Mobile Markets

To ensure access to locally grown community and regional foods, zoning regulations should permit nontraditional distribution and retail uses such as farm stands, farmers markets, and mobile markets. These uses can bring produce and healthy foods to communities underserved by grocery stores, and because they offer direct sales, food markups are reduced.<sup>93</sup> Farm stands are typically permitted in agricultural districts, although they may be limited to selling products grown on-site.<sup>94</sup> Many zoning ordinances, however, do not allow farm stands in urban and suburban areas, and this can interfere with the sale of produce from community gardens and other agricultural operations.<sup>95</sup> To allow more farm stand uses, some local governments permit farm stands, subject to licensing, building, parking, and sign regulations.<sup>96</sup> Farm stands may also be required to obtain a special

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91. See, e.g., MUSKEGON, MICH. ZONING ORDINANCE § 2313 (2010), available at <http://www.muskegon-mi.gov/cresources/zoningord/gp/sec2313.pdf> (requiring each community garden to have a garden coordinator to act as a liaison between the city and city departments); SAN DIEGO, CAL. MUN. CODE § 141.0203 (2000), available at <http://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art01Division02.pdf> (prohibiting on-site sales, requiring fencing and screening, limiting hours of operation to between sunrise and sunset, and requiring gardens to be locked after hours).

92. THE DIGGABLE CITY, *supra* note 14, at 48 (explaining that community gardens are not permitted to sell their produce to limit competition with farmers markets and to ensure that community gardens are not used for entrepreneurial purposes).

93. OAKLAND FOOD POLICY COUNCIL, *supra* note 48, at 18.

94. See SALKIN, *supra* note 38.

95. See, e.g., Sarah Henry, *Urban homesteader challenges city on sale of edibles*, BERKELEYSIDE (Apr. 15, 2011, 9:30 AM), <http://www.berkeleyside.com/2011/04/15/urban-homesteader-challenges-city-on-sale-of-edibles/> (reporting on the need to reform the Berkeley, California, zoning code to permit urban agriculture sales, and noting that Detroit, Kansas City, Mo., Seattle, and Oakland, Ca., have recently made changes to allow urban farmers to sell produce).

96. See, e.g., SOUTH WINDSOR, CONN., ZONING REGULATIONS §§ 3.2.1(D) (temporary roadside stands), 7.8 (permanent farm stands) (2011), available at

permit or zoning clearance.<sup>97</sup> Under the Kansas City, Missouri, urban agriculture ordinance, food and horticultural products grown in home gardens and community gardens can be sold on-site with few restrictions.<sup>98</sup> Seattle's urban farm regulations are similar.<sup>99</sup> The Cleveland urban agriculture ordinance takes a different approach and requires approval from the board of zoning appeals for farm stands and on-site sales.<sup>100</sup> The board is directed to consider the nature of nearby land uses, the proximity of the farm stand to single family homes, traffic volume and parking availability, and the proximity of other farm stands.<sup>101</sup> Sales can only be made in residential districts if the agricultural use is the primary use of the property, but foods prepared off-site can be sold if the principal ingredients were grown on-site.<sup>102</sup>

Farmers markets offer another way for producers to sell directly to consumers. While some ordinances permit farmers markets in certain

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[http://www.southwindsor.org/pages/swindsorct\\_planningdept/ZoningRegs21211Current.pdf](http://www.southwindsor.org/pages/swindsorct_planningdept/ZoningRegs21211Current.pdf); NOLENSVILLE, TENN., ZONING ORDINANCE § 4.1.3(E) (2010), available at <http://www.nolensvilletn.gov/content/zoning-ordinance/480-article-4-temp-use.html>; JACKSON, WYO., REQUIREMENTS FOR FARM STANDS (2006), available at <http://www.townofjackson.com/content/index.cfm?fuseaction=showContent&contentID=108&navID=109>.

97. ALBEMARLE COUNTY, VA., COUNTY CODE § 5.1.47 (2010), available at [http://www.farmlandinfo.org/documents/38359/Albemarle\\_County,\\_VA\\_\\_Zoning\\_Code.pdf](http://www.farmlandinfo.org/documents/38359/Albemarle_County,_VA__Zoning_Code.pdf).

98. KANSAS CITY, MO., ORDINANCE NO. 100299 (2009), available at <http://www.kcmo.org/idc/groups/cityplanningdevelopmentdiv/documents/cityplanninganddevelopment/100299.pdf>.

99. SEATTLE, WASH., ORDINANCE No. 123378 (2011), available at <http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?s1=&s3=116907&s4=&s2=&s5=&Sect4=AND&l=20&Sect2=THESON&Sect3=PLURON&Sect5=CBORY&Sect6=HITOFF&d=ORDF&p=1&u=%2F~public%2Fcbory.htm&r=1&f=G>. Urban farms that are over 4,000 square feet require administrative approval as an accessory or conditional use, and stricter regulations apply. *Id.*; SEATTLE, WASH., MUN. CODE § 23.44.042 (2011), available at <http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?d=CODE&s1=23.44.042.snum.&Sect5=CODE1&Sect6=HITOFF&l=20&p=1&u=/~public/code1.htm&r=1&f=G>.

100. CLEVELAND, OHIO, ZONING CODE § 337.25 (d)(3) (2010), available at <http://planning.city.cleveland.oh.us/zoning/pdf/337-02%20UrbanAgricultureinResidential.pdf>.

101. *Id.*

102. *Id.* at § 337.25(d)(1).

zoning districts,<sup>103</sup> other cities specify the exact location of farmers markets.<sup>104</sup> Farmers' market ordinances commonly include licensing and operational restrictions, such as hours of operation and limits on the size of vendor stands.<sup>105</sup> In San Francisco, farmers markets are permitted in city parks subject to approval from the Recreation and Park Commission.<sup>106</sup> San Francisco has also sought to increase access to local produce in underserved areas by conducting a needs assessment of neighborhoods that could support farmers markets without impacting the viability of local businesses.<sup>107</sup>

Community supported agriculture ("CSA") refers to a farm where harvests are divided among shareholders, who may pay into the CSA or perform work at the farm to obtain their shares.<sup>108</sup> Kansas City, Missouri allows CSAs in residential districts, subject to approval of a special use permit.<sup>109</sup> Under the regulations, CSAs must comply with

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103. GREENSBURG, KY., ORDINANCE 050801, § 16-135 (2011), *available at* <http://www.greensburgonline.com/farmersMarketOrd.pdf>; WICHITA, KAN., ORDINANCE 47-025 (2006), *available at* [http://www.farmlandinfo.org/documents/37907/Wichita,\\_KS\\_Farmers\\_Mkt\\_Ordinance.pdf](http://www.farmlandinfo.org/documents/37907/Wichita,_KS_Farmers_Mkt_Ordinance.pdf); MISSOULA, MONT., MUN. CODE §§ 8.20.010 - 8.20.050 (1998), *available at* [http://www.farmlandinfo.org/documents/37902/Missoula\\_Farmers\\_Market\\_Ordinance.pdf](http://www.farmlandinfo.org/documents/37902/Missoula_Farmers_Market_Ordinance.pdf).

104. SALEM, OHIO, ORDINANCE No. 090519-32 (2009), *available at* [http://www.farmlandinfo.org/documents/37906/Salem,\\_OH\\_Farmers\\_Mkt\\_Ordinance.pdf](http://www.farmlandinfo.org/documents/37906/Salem,_OH_Farmers_Mkt_Ordinance.pdf); DAHLONEGA, GA., ORDINANCE No. 2001-7 (2002), *available at* [http://www.farmlandinfo.org/documents/37904/Dahlonega,\\_GA\\_Farmers\\_Mkts\\_Ordinance.pdf](http://www.farmlandinfo.org/documents/37904/Dahlonega,_GA_Farmers_Mkts_Ordinance.pdf); LAFAYETTE, IND., ORDINANCE No. 2005-11 (2005), *available at* [http://www.farmlandinfo.org/documents/37903/Lafayette,\\_IN\\_Farmers\\_Market\\_ord.pdf](http://www.farmlandinfo.org/documents/37903/Lafayette,_IN_Farmers_Market_ord.pdf).

105. *See generally* Neil D. Hamilton, *Farmers' Markets Rules, Regulations and Opportunities*, NAT'L CTR. FOR AGRIC. LAW RES. & INFO., UNIV. OF ARK. 11-16(2002), *available at* [http://www.nyfarmersmarket.com/pdf\\_files/fmruleregs.pdf](http://www.nyfarmersmarket.com/pdf_files/fmruleregs.pdf) (providing examples of operational restrictions of farmers' markets in various cities).

106. S.F., CAL., ORDINANCE No. 29-07 (2007), *available at* [http://www.farmlandinfo.org/documents/37865/SF\\_Farmers\\_Markets\\_in\\_Parks\\_law.pdf](http://www.farmlandinfo.org/documents/37865/SF_Farmers_Markets_in_Parks_law.pdf).

107. *Id.*

108. *See generally* *Alternative Farming Systems Information Center, Community Supported Agriculture*, U.S. DEP'T. OF AGRIC., ALTERNATIVE FARMING SYS. INFO. CTR., <http://www.nal.usda.gov/afsic/pubs/csa/csa.shtml> (last modified May 5, 2011 15:09:56 EDT).

109. KANSAS CITY, MO., ORDINANCE No. 100299, § 88-312-02C (2009), *available at* <http://www.kcmo.org/idc/groups/cityplanningdevelopmentdiv/documents/cityplanninganddevelopment/100299.pdf>.

setbacks and building standards for the zoning district, and may not plant row crops in the front yard of a residentially occupied property.<sup>110</sup> On-site sales are permitted, but reasonable conditions can be imposed under the special use permit.<sup>111</sup>

In addition to farm stands and farmers markets, regional food advocates support innovative food distribution systems such as mobile food markets, which can be retrofitted buses or trucks that can bring produce and groceries to underserved communities.<sup>112</sup> “Urban food terminals”—retail grocery stores that have food production, farmers markets, and restaurants on-site—have also been proposed as a way to bring more fresh and local food to urban areas.<sup>113</sup> Zoning ordinances need to be updated to allow for these uses in appropriate districts and subject to appropriate review.

### 3. Backyard Chickens

Regional foodsheds can benefit by permitting residents to keep chickens in urban and suburban areas, as “[t]he keeping of hens supports a local, sustainable food system by providing an affordable, nutritious food source of fresh eggs.”<sup>114</sup> Although concerns have been voiced about keeping chickens in urban residential settings, many cities, including Austin,<sup>115</sup> New York City,<sup>116</sup> Seattle,<sup>117</sup> Portland, Oregon,<sup>118</sup> and San Francisco permit backyard chickens.<sup>119</sup> Some of

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110. *Id.*

111. *Id.*

112. *Curbing Childhood Obesity*, *supra* note 22.

113. *Curbing Childhood Obesity*, *supra* note 22; *Suburban Food Terminal and Urban Food Terminal Renderings*, URBAN DESIGN LAB, [http://www.urbandesignlab.columbia.edu/sitefiles/file/urban%20design%20obesity\\_food%20terminals.jpg](http://www.urbandesignlab.columbia.edu/sitefiles/file/urban%20design%20obesity_food%20terminals.jpg) (last visited May 28, 2011).

114. CHEROKEE, GA., BACKYARD CHICKEN ORDINANCE 7.7-9 (Backyard Chickens) (2011), *available at* [http://www.cherokeega.com/departments/planningandzoning/uploads/File/OrdChanges/backyard\\_chicken\\_ord\\_7.7-9\\_version\\_09-16.pdf](http://www.cherokeega.com/departments/planningandzoning/uploads/File/OrdChanges/backyard_chicken_ord_7.7-9_version_09-16.pdf).

115. AUSTIN, TEX., CODE OF ORDINANCES § 25-2-863(G) (2011), *available at* [http://www.amlegal.com/austin\\_tx/](http://www.amlegal.com/austin_tx/).

116. N.Y.C., N.Y., RULES OF THE CITY OF N.Y. tit. 24, § 161.19 (2011), *available at* <http://24.97.137.100/nyc/rcny/entered.htm>.

117. SEATTLE, WASH., MUN. CODE § 23.42.052(C) (2011), *available at* <http://clerk.ci.seattle.wa.us/~public/code1.htm>.

118. PORTLAND, OR., MUN. CODE § 13.05.015(E) (2011), *available at* <http://www.portlandonline.com/auditor/index.cfm?c=28148>.

the common issues covered by local ordinances include limits on the number of hens, setbacks for coops and pens, requirements for neighbor consent, restrictions against roosters, requirements for proper feed storage, and pest control provisions.<sup>120</sup>

It is not uncommon for municipalities to regulate residential chicken raising through licensing and permitting laws. Ann Arbor, Michigan, allows residents to apply for a permit to keep up to four “backyard chickens.”<sup>121</sup> The permit costs twenty dollars and requires proof of consent by adjacent neighbors.<sup>122</sup> Backyard chicken ordinances may also limit residents to keeping chickens for personal use, and prohibit them from selling eggs or poultry on-site. For example, the zoning regulation in Portland, Maine, provides that its purpose is “to enable residents to keep a small number of female chickens on a non-commercial basis while creating standards and requirements that ensure that domesticated chickens do not adversely impact the neighborhood surrounding the property on which the chickens are kept.”<sup>123</sup> In San Francisco, residents are also prohibited from raising or breeding chickens for commercial purposes, and chicken operations that qualify as “commercial” are subject to different regulations.<sup>124</sup>

Rather than setting a limit on the number of chickens permitted, some municipalities set minimum lot size and setback requirements. This approach serves a number of purposes: it can bar chickens from particularly dense neighborhoods, prevent residents from keeping large flocks, and ensure that chickens have enough space to live comfortably. However, if such requirements are too restrictive, they

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119. S.F., CAL. HEALTH CODE, art. 1, § 37(a) (2011), available at <http://library.municode.com/HTML/14136/book.html>.

120. See generally Salkin, *Feeding the Locavores*, supra note 33.

121. ANN ARBOR, MICH., CODE OF ORDINANCES. tit. IX, ch. 107, § 9:42 (2011), available at <http://library.municode.com/HTML/11782/book.html>  
[http://www.a2gov.org/government/city\\_administration/City\\_Clerk/Documents/Backyard%20Chickens%20Permit%200708.pdf](http://www.a2gov.org/government/city_administration/City_Clerk/Documents/Backyard%20Chickens%20Permit%200708.pdf).

122. *Id.* See also Thelma Guerrero-Huston, *After Big Flap, Only Five Chicken Licenses Applied For in Salem*, STATESMAN J., Jan. 29, 2011, at A.1 (discussing the permit requirement in Salem, Oregon, which is valid for three years and costs \$50 per year).

123. PORTLAND, ME., CODE OF ORDINANCES § 5-400 (2011), available at <http://www.portlandmaine.gov/citycode/chapter005.pdf>.

124. S.F., CAL., HEALTH CODE, art. 1, § 37(c) (2011), available at <http://library.municode.com/HTML/14136/book.html>.

may create obstacles to chicken raising in neighborhoods otherwise suited for that use. The 150-foot setback required in Concord, New Hampshire, for example, effectively limits backyard chicken raising to single-family homes on large lots.<sup>125</sup> Setbacks vary, however. Little Rock, Arkansas has a more reasonable twenty-five foot setback requirement,<sup>126</sup> while Topeka, Kansas,<sup>127</sup> and Stamford, Connecticut,<sup>128</sup> have fifty-foot setback requirements. Minimum lot size requirements also vary. In Grand Rapids, Minnesota, only one chicken is permitted per 2,500 square feet of lot size,<sup>129</sup> while in Pima County, Arizona, twenty-four chickens may be kept per 8,000 square feet of lot space in single-family zones.<sup>130</sup>

Local laws permitting backyard chickens also often regulate the size, height, and site placement of chicken coops and pens, as well as requiring them to be adequately cleaned and safeguarded from predators. For example, Knoxville, Tennessee requires that hens be kept inside a fenced enclosure at all times during the day and secured inside a coop during non-daylight hours.<sup>131</sup> If the fenced enclosure is not covered, then it must be at least forty-two inches high and the hens' wings must be clipped.<sup>132</sup> A building permit is required for the construction of a coop, which must be made of uniform materials,

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125. CONCORD, N.H., CODE OF ORDINANCES, tit. IV ch. 28-4-2 (d) (2011), available at <http://library.municode.com/index.aspx?clientId=10210&stateId=29&stateName=New%20Hampshire>.

126. LITTLE ROCK, ARK., CODE OF ORDINANCES ch. 6, art. 4, § 6-44 (2011), available at <http://library.municode.com/index.aspx?clientId=11170&stateId=4&stateName=Arkansas>.

127. TOPEKA, KAN., MUN. CODE tit. 6, § 6.40.010 (2011), available at <http://www.codepublishing.com/KS/Topeka/>.

128. STAMFORD, CONN., MUN. CODE ch. 111, § 111-3 (2010), available at [http://library2.municode.com/default-test/home.htm?infobase=13324&doc\\_action=whatsnew](http://library2.municode.com/default-test/home.htm?infobase=13324&doc_action=whatsnew).

129. GRAND RAPIDS, MINN., CITY CODE ch. 10, art. III, § 10-72 (2010), available at [http://library1.municode.com/default-test/home.htm?Infobase=13419&doc\\_action=whatsnew](http://library1.municode.com/default-test/home.htm?Infobase=13419&doc_action=whatsnew).

130. PIMA COUNTY, ARIZ., CODE OF ORDINANCES tit. 18, ch. 18.25, § 18.25.010 (2008), available at [http://library.municode.com/html/16119/level2/TIT18ZO\\_CH18.25SIREZO.html](http://library.municode.com/html/16119/level2/TIT18ZO_CH18.25SIREZO.html).

131. KNOXVILLE, TENN., CODE OF ORDINANCES pt. II2, ch. 5, art. IV, § 5-107(f)(1) (2011), available at <http://library.municode.com/index.aspx?clientId=11098&stateId=42&stateName=Tennessee&customBanner=11098.jpg&imageclass=L&cl=11098.txt>.

132. *Id.*

have a roof and doors that can be tightly secured, be properly ventilated, and have adequate sunlight.<sup>133</sup> In Atlanta, Georgia, chicken coops must have solid floors made out of cement or another washable material, unless the enclosure is more than seventy-five feet away from the nearest neighbor's residence or business.<sup>134</sup> Maintenance laws are also common. In Baton Rouge, for example, "[a]ll enclosures shall be cleaned regularly to prevent an accumulation of food, fecal matter, or nesting material from creating a nuisance or unsanitary condition due to odor, vermin, debris, or decay."<sup>135</sup>

#### 4. Beekeeping

Along with backyard chickens, urban beekeeping has increased in popularity in recent years.<sup>136</sup> New York City recently legalized apiculture,<sup>137</sup> and in Chicago, bees raised on the roof of City Hall produce hundreds of pounds of honey every year, which is sold at local farm stands.<sup>138</sup> Bees are even raised in the Obamas' garden at the White House.<sup>139</sup>

Bees not only produce honey and other products that can be collected, processed and sold, they also play an important role in the pollination of many plant species which may be raised in urban

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133. *Id.*

134. ATLANTA, GA., ZONING CODE art. II, § 18-7 (2011), available at <http://library.municode.com/index.aspx?clientId=10376&stateId=10&stateName=Georgia>.

135. BATON ROUGE, LA., MUN. CODE §14:224 (c)(1) (2011), available at <http://library.municode.com/index.aspx?clientId=10107&stateId=18&stateName=Louisiana>.

136. Jamie Self, *York County Evaluates Urban Beekeeping Regulations*, FORT MILL TIMES (Feb. 20, 2011, 5:43 PM), available at <http://www.fortmilltimes.com/2011/02/20/1450030/york-county-evaluates-beekeeping.html>.

137. Mariel Smith, *Big Apple Lifts Beekeeper Ban*, NBC NEW YORK (Mar. 16, 2010, 6:27 PM), <http://www.nbcnewyork.com/news/local/NYC-Health-Dpt-Lifts-Beekeeper-Ban-87834542.html>.

138. Phillip Potempa, *The Buzz on Urban Beekeeping: Chicago High-Rises are Home to Hives Flowing with Honey*, SHORE MAGAZINE (Mar. 9, 2011, 12:00 AM), available at [http://www.nwitimes.com/niche/shore/food-and-drink/article\\_77bc5184-53aa-55b6-93f8-f5d92b591c2f.html](http://www.nwitimes.com/niche/shore/food-and-drink/article_77bc5184-53aa-55b6-93f8-f5d92b591c2f.html).

139. *Inside the White House: Bees!*, THE WHITE HOUSE (June 23, 2010), <http://www.whitehouse.gov/photos-and-video/video/2010/06/23/inside-white-house-bees>.

gardens, such as tomatoes, peppers, eggplant, berries, fruits, alfalfa, clover, and onions.<sup>140</sup> Urban beekeeping operations often raise fears and other concerns among neighbors,<sup>141</sup> however, even though apiaries can be maintained safely under an appropriate permitting system and with proper care and maintenance. For this reason, local governments should make sure that regulations are in place to reduce the risks of creating a nuisance.<sup>142</sup>

Setbacks and limits on the number of permitted hives are often imposed on urban apicultural operations in order to reduce safety risks. In Fort Collins, Colorado, the number of hives that a person can keep depends on property size, ranging from two hives for parcels smaller than a quarter of an acre to up to eight colonies for lots larger than one acre.<sup>143</sup> However, these limits do not apply if all of the hives are set back at least 200 feet from all property lines.<sup>144</sup> Evanston, Illinois, instituted a colony density scheme under which no more than eight apiaries are permitted within each ward,<sup>145</sup> and in Tuscaloosa,

140. JAMES P. STRANGE, U.S. DEPT. OF AGRIC., AGRIC. RESEARCH SERV., *RAISING BUMBLE BEES AT HOME: A GUIDE TO GETTING STARTED 2* (last visited May 28, 2011), available at <http://www.ars.usda.gov/SP2UserFiles/Place/54280500/BumbleBeeRearingGuide.pdf>.

141. See GOV'T OF NEW SOUTH WALES, *INQUIRY INTO BEEKEEPING IN URBAN AREAS 9* (2000), available at [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0010/116596/inquiry-urbanbeekeeping.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0010/116596/inquiry-urbanbeekeeping.pdf) (stating "Many people in the community have an inbuilt fear of bees, similar to fears experienced with spiders and snakes. Even the sight of empty bee boxes can create concern in some people."); see also Self, *supra* note 136.

142. See generally *LAW OF BEES*, 39 A.L.R. 352 (1925) (discussing nuisance cases). In some cases, local governments may also have to amend ordinances that prohibit "wild" animals before apiculture can be practiced. The New York City Health Code had to be amended to exclude non-aggressive honeybees from the definition of "wild animals." 24 RCNY HEALTH CODE §161.01(b)(12) (2010), available at [http://24.97.137.100/nyc/RCNY/Title24\\_161\\_01.asp?zoom\\_highlight=bees](http://24.97.137.100/nyc/RCNY/Title24_161_01.asp?zoom_highlight=bees). Denver, Colorado also bans the keeping of "wild or dangerous animals," but specifically states that category does not include domesticated honeybees. DENVER, COLO., CODE OF ORDINANCES tit. II, ch. 8, art. I §8-2(c) (2011), available at <http://library.municode.com/index.aspx?clientId=10257&stateId=6&stateName=Colorado>.

143. FORT COLLINS, COLO., MUN. CODE ch. 4, art. II, div. 2 § 4-233(a) (2011), available at <http://www.colocode.com/ftcollins/municipal/chapter4.htm>.

144. *Id.* at § 4-233(a)(5).

145. EVANSTON, ILL., CITY CODE § 9-4-19(H)(1) (2011), available at <http://library.municode.com/index.aspx?clientId=14913&stateId=13&stateName=Illinois>.

Alabama, it is illegal to keep bees within 150 feet of any school, public park, or playground, or within 300 feet of any residential property line.<sup>146</sup>

Some ordinances also require the construction of a “flyway barrier” to protect adjacent properties from bees leaving the hive. The barrier may be a solid fence, wall, or dense line of hedges along the property line that the hive entrance faces.<sup>147</sup> Beekeepers may also be required to provide their bees with access to water to lessen the likelihood that bees will seek water from neighboring parcels.<sup>148</sup> As lawmakers in Fort Collins, Colorado noted, water source requirements ensure that “the bees will not congregate at swimming pools, bibcocks, pet water bowls, birdbaths or other water sources where they may cause human, bird or domestic pet contact.”<sup>149</sup> As an additional safety measure, San Diego requires anyone with an apiary to erect a sign

prominently displayed on the entrance side of the apiary stating, in black letters not less than one inch in height on a background of contrasting color, the name of the owner or person in possession of the apiary, his address and

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146. See TUSCALOOSA, ALA., CODE OF ORDINANCES ch. 4, art. I §4-11 (2011), available at <http://library.municode.com/index.aspx?clientId=10302&stateId=1&stateName=Alabama>; see also BEACH PARK, ILL., VILLAGE CODE §8.12.260 (2010), available at [http://www.sterlingcodifiers.com/codebook/index.php?book\\_id=467](http://www.sterlingcodifiers.com/codebook/index.php?book_id=467) (declaring it a nuisance and making it unlawful to keep bees within a quarter mile of any “residence, school, church or other place of public gathering within the village.”); DAYTON, OHIO, ZONING CODE §150.420.1(A) (2010), available at <http://www.cityofdayton.org/departments/pcd/planning/Documents/ZoningCode.pdf> (requiring a lot size of at least 7,500 square feet and allows for one additional hive “for every additional 5,000 square feet of lot area.”; also requiring hives to be least ten feet from any lot line, ten feet from a dwelling and at least 30 feet from a public sidewalk or roadway); SAN DIEGO, CAL., MUN. CODE §44.0409 (1977), available at <http://docs.sandiego.gov/municode/MuniCodeChapter04/Ch04Art04Division04.pdf> (requiring that bees be kept at least 100 feet from any public roadway).

147. See, e.g., EVANSTON, ILL., CITY CODE § 9-4-19 (D) (fencing required); DAYTON, OHIO, ZONING CODE § 150.420.1(A)(3) (requiring the hives’ entrance to face “away from the property line of the residential lot closest to the beehive.”).

148. See, e.g., 24 RCNY HEALTH CODE §161.01(b)(12); DAYTON, OHIO, ZONING CODE § 150.420.1(A)(4); EVANSTON, ILL., CITY CODE § 9-4-19(E).

149. FORT COLLINS, COLORADO, MUNI. CODE § 4-230.

telephone number, or, if he has no telephone, a statement to that effect.<sup>150</sup>

Fort Collins, Colorado requires that the owners of apiaries “conspicuously post” signs including their name and contact information.<sup>151</sup>

### 5. Zoning for Agritourism

In the suburbs and exurbs, local governments can help make small and medium sized farms more profitable by allowing agritourism at locations such as wineries, pick-your-own farms, and nurseries. Clark County, Oregon passed a winery ordinance in October 2010, allowing vintners to sell wine directly to customers and hold up to fifty events per year.<sup>152</sup> Artisan spirits distilleries are also making a comeback from strict prohibition-era regulations, although state alcohol laws may have to be changed before zoning can permit retail sales at farm distilleries.<sup>153</sup> Bainbridge Island, Washington amended its zoning in 2004 to allow a variety of less intoxicating farm uses, including U-pick sales, farm mazes, pumpkin patches, farm animal petting zoos, wagon rides, farm tours, cider presses, classes and workshops, and tasting events.<sup>154</sup>

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150. SAN DIEGO, CAL. MUN. CODE § 44.0411.

151. FORT COLLINS, COLORADO, MUN. CODE § 4-234(a).

152. Elliot Njus, *Clark County Commissioners Approve Winery Ordinance*, THE OREGONIAN (Oct. 6, 2010, 11:23 AM), available at [http://www.oregonlive.com/clark-county/index.ssf/2010/10/clark\\_county\\_commissioners\\_approve\\_winery\\_ordinance.html](http://www.oregonlive.com/clark-county/index.ssf/2010/10/clark_county_commissioners_approve_winery_ordinance.html); Elliot Njus, *Growing a Clark County wine industry*, THE OREGONIAN (Oct. 1, 2010, 7:00 PM) (last updated Oct. 6, 2010, 11:46 AM) available at [http://www.oregonlive.com/clark-county/index.ssf/2010/10/growing\\_a\\_clark\\_county\\_wine\\_industry.html](http://www.oregonlive.com/clark-county/index.ssf/2010/10/growing_a_clark_county_wine_industry.html).

153. See Toby Cecchini, *Just Don't Call It Moonshine*, N.Y. TIMES, Dec. 21, 2010, <http://www.nytimes.com/2010/12/22/dining/22Distill.html>.

154. CITY OF BAINBRIDGE ISLAND, WASH., ORDINANCE No. 2004-11 (2004), available at [http://www.farmlandinfo.org/documents/30137/Bainbridge\\_Island\\_ordinance.pdf](http://www.farmlandinfo.org/documents/30137/Bainbridge_Island_ordinance.pdf).

## 6. Green Roofs

Green roofs, sometimes also called eco-roofs, are specially designed rooftop gardens or lawns.<sup>155</sup> They may have deep soils capable of supporting trees and shrubs, known as an intensive greenroof, or they may consist of a shallower layer of growing medium to be used for grass plantings, called an extensive greenroof.<sup>156</sup> In a broader sense, green roofs also include rooftop container gardens. Cities across the country have started to install green roofs on public buildings in order to comply with municipal green buildings laws,<sup>157</sup> and environmentally conscious residents and businesses have also begun to use green roofs in place of more traditional roofing systems.<sup>158</sup> As green roofs have become more common, their particular benefits, such as improved air and water quality, stormwater retention, urban heat island mitigation, habitat production, improved building efficiency, longer roof life, and even beauty-have begun to stand out,<sup>159</sup> leading some municipalities to develop incentives and requirements for green roofs apart from general green building and stormwater management requirements.<sup>160</sup> Food production, of course, is another benefit of green roofs that have been planted with fruits and vegetables.<sup>161</sup>

### III. OTHER POLICIES: SUBSIDIES/INCENTIVES/TECHNICAL ASSISTANCE

One of the most effective ways for local governments to increase urban farming is through subsidies, incentives, and technical

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155. Linda S. Velazquez, *Organic Greenroof Architecture: Sustainable Development for the New Millennium*, ENVTL. QUALITY MGMT. 3 (2005), available at [http://www.greenroofs.com/pdfs/news-EQM\\_VelazquezPart1.pdf](http://www.greenroofs.com/pdfs/news-EQM_VelazquezPart1.pdf).

156. *Id.*

157. See Lisa Anderson, *Green With Roof Envy; Other Cities Push to Take Chicago's Crown*, CHI. TRIB., Sept. 19, 2008, available at [http://archives.chicagotribune.com/2008/sep/19/business/chi-green\\_roofssep19](http://archives.chicagotribune.com/2008/sep/19/business/chi-green_roofssep19). Chicago has more square footage of greenroofs than any other city in the United States, with its most notable greenroof being City Hall. *Id.*

158. *Id.*

159. See Angela Spivey, *Rooftop Gardens a Cool Idea*, 110 ENVTL. HEALTH PERSP. A668, A668 (2002).

160. See David A. Taylor, *Green Roofs, City by City*, 115 ENVTL. HEALTH PERSP. A306, A308-11 (2007).

161. See Marian Burros, *Urban Farming, A Bit Closer to the Sun*, N.Y. TIMES, Jun. 16, 2009, <http://www.nytimes.com/2009/06/17/dining/17roof.html>.

assistance, especially when these programs complement funding opportunities being offered by state and federal agencies or private organizations.<sup>162</sup> Cleveland, for example, partnered with the U.S. Department of Agriculture and Ohio State University to establish a three-year, \$1.1 million Urban Agriculture Incubator Project, which will train twenty residents to grow crops in underserved neighborhoods.<sup>163</sup> A \$425,000 grant from the City of Milwaukee and the federal Housing and Urban Development agency will fund construction of 150 hoop houses and create 150 new jobs for beginning urban farmers.<sup>164</sup> A program run by the Philadelphia Department of Public Health and the city Food Trust helps to bring subsidies directly to the people who need them most, with the help of funding from the federal Communities Putting Prevention to Work Initiative.<sup>165</sup> Called Philly Food Bucks, the program gives food stamp recipients two dollars in Philly Bucks for every five dollars they spend at farmers markets.<sup>166</sup> Another innovative assistance program is the Minneapolis Healthy Corner Store Initiative, which helps storeowners find economic ways to stock fruits and vegetables.<sup>167</sup> Minneapolis received funding for the program from the Statewide

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162. See, e.g., VICTOR OLIVEIRA & DAVID SMALLWOOD, U.S. DEPT. OF AGRIC., FOOD ASSISTANCE AND NUTRITION RESEARCH PROGRAM, FISCAL 2011, COMPETITIVE GRANTS AND COOPERATIVE AGREEMENTS PROGRAM: DESCRIPTION AND APPLICATION PROCESS (2011), available at <http://www.ers.usda.gov/Publications/AP/AP055/AP055.pdf>; AM. THE BEAUTIFUL FUND, *Operation Green Plant*, available at [http://www.america-the-beautiful.org/free\\_seeds/index.php](http://www.america-the-beautiful.org/free_seeds/index.php) (last visited May 28, 2011) (describing private grant program providing vegetable and herb seeds); THE NAT'L GARDENING ASS'N, *Youth Garden Grants*, available at <http://www.kidsgardening.com/ygg.asp> (last updated June 15, 2011) (describing private grant program for schools and community organizations with child-centered garden programs).

163. Mark Gillispie, *New \$1.1 Million Program to Create Urban Farms in Cleveland's Kinsman Neighborhood*, THE PLAIN DEALER (Oct. 27, 2010, 6:31 PM), [http://blog.cleveland.com/metro/2010/10/new\\_program\\_to\\_create.html](http://blog.cleveland.com/metro/2010/10/new_program_to_create.html).

164. *Growing Power Initiative to create 150 new jobs aimed at African American males*, MILWAUKEE COURIER, Apr. 16, 2011, available at <http://milwaukeecourieronline.com/index.php/2011/04/16/growing-power-initiative-to-create-150-new-jobs-aimed-at-african-american-males/>.

165. THE FOOD TRUST, *Farmers' Market Program*, <http://www.thefoodtrust.org/php/programs/farmers.market.program.php#> (last visited May 28, 2011).

166. *Id.*

167. Madeleine Baran, *Minneapolis kicks off plan to get more produce in corner stores*, MPR NEWS, Dec. 20, 2010, available at <http://minnesota.publicradio.org/display/web/2010/12/20/corner-stores-produce-initiative/>.

Health Improvement Program, and is also using funding to create mini farmers markets in underserved neighborhoods and provide public education resources.<sup>168</sup> Portland, Oregon, offers classes on beekeeping, cheese making, fruit growing, livestock, and other agricultural topics.<sup>169</sup>

### *A. Using Vacant and Municipal Land for Urban Agriculture*

A lower cost alternative to grant and subsidy programs is for local governments to make municipal land and vacant lots available to community gardeners. In Albany, New York, for example, the city has worked with a nonprofit community garden organization to establish gardens on formerly vacant lots.<sup>170</sup> Similarly, a pilot program in Philadelphia is making city-owned parcels available to local farmers for greenhouse uses.<sup>171</sup> In Baltimore, which already has dozens of community gardens, “the City is proposing the creating of a Land Bank that would more clearly identify land that should be maintained as CMOS [Community-Managed Open-Spaces] for the long term so that community groups have confidence to invest ‘sweat equity’ into their urban gardens.”<sup>172</sup> Some municipalities have also allowed agricultural operations on rights of ways.<sup>173</sup>

## 1. Edible Landscaping

Another simple way to use urban land for food production is through planting edible landscaping, such as fruit and nut trees, or

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168. *Id.*

169. CITY OF PORTLAND, ORE., BUREAU OF PLANNING AND SUSTAINABILITY, *Urban Growth Bounty 2011*, <http://www.portlandonline.com/bps/index.cfm?c=50648&> (last visited May 28, 2011).

170. CITY OF ALBANY, N.Y., *Community Gardens*, <http://www.albanyny.gov/Government/Departments/GeneralServices/Beautification/CommunityGardens.aspx> (last visited May 28, 2011).

171. Thomas J. Walsh, *RDA Pilots Urban Farm Initiative for Land Bank*, PLAN PHILLY (Feb. 25, 2009), available at <http://planphilly.com/node/8368>.

172. CITY OF BALTIMORE, FOOD POLICY TASK FORCE, FINAL REPORT AND RECOMMENDATIONS 18 (2009), available at <http://cleangreenerbaltimore.org/uploads/files/Baltimore%20City%20Food%20Policy%20Task%20Force%20Report.pdf>.

173. See, e.g., DES MOINES, IOWA, ORDINANCE No. 14, 314 (2004), available at <http://www.dmgov.org/government/citycouncil/ordinances/14314.pdf>; THE DIGGABLE CITY, *supra* note 14, at 49.

shrubs like mulberry and blackberries.<sup>174</sup> Local governments can facilitate this type of landscaping by providing land for plantings or by using edible species for street trees and other publicly maintained green space. The Portland, Oregon, Food Policy Council worked with city agencies and community groups to devise recommendations for fruit and nut tree plantings.<sup>175</sup> It made a conservative estimate that planting 400 fruit and nut trees would result in a minimum of 85,000 pounds of fresh produce per year.<sup>176</sup> The council recommended that the city expand public-private partnerships for urban orchards by making public land available and providing public education.<sup>177</sup> It also suggested that city and county policies such as the Urban Forest Action Plan be amended to include appropriate language relating to fruit and nut trees.<sup>178</sup> The Marin County, California, comprehensive plan also supported the use of edible landscaping for new developments and when replacing plantings on county property.<sup>179</sup> The Protection of Trees by-law in Vancouver, Canada, was recently updated to include fruit and nut trees in the list of suitable replacement trees,<sup>180</sup> and in Rapid City, South Dakota, the city provided land along the local greenway for a community apple orchard.<sup>181</sup> The San Francisco Housing Authority has also recognized the benefits of urban orchards, and has set up a program to plant fruit and nut trees on public housing properties and hire residents to

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174. See generally Kim Severson, *Neighbor, Can You Spare a Plum?*, N.Y. TIMES, Jun. 9, 2009, <http://www.nytimes.com/2009/06/10/dining/10Fruit.html>; see also NEIGHBORHOOD FRUIT, <http://neighborhoodfruit.com/> (last visited May 28, 2011).

175. See PORTLAND MULTNOMAH FOOD POLICY COUNCIL, PORTLAND FRUIT/NUT TREE REPORT 1 (Apr. 2009), available at <http://www.sustainableportland.org/bps/index.cfm?a=311794&c=42829>.

176. *Id.* at 4.

177. *Id.* at 5-6.

178. *Id.* at 6.

179. MARIN CNTY. BD. OF SUPERVISORS, *supra* note 58, at 2-170.

180. CITY OF VANCOUVER, COMMUNITY SERVICES DEVELOPMENT SERVICES, *Private Property Tree Information*, <http://vancouver.ca/commsvcs/planning/treebylaw/treeidxj.htm> (last modified Dec. 21, 2009, 17:26:58 GMT).

181. Emillie Rusch, *Orchard Project Volunteers Plant 100 Trees for Arbor Day*, RAPID CITY JOURNAL, May 1, 2010, available at [http://www.rapidcityjournal.com/article\\_a3525498-54bf-11df-a842-001cc4c002e0.html](http://www.rapidcityjournal.com/article_a3525498-54bf-11df-a842-001cc4c002e0.html).

maintain them.<sup>182</sup> Excess produce is given to neighborhood pantries and food banks.<sup>183</sup> Despite the sustainability and health benefits of using fruit and nut trees for landscaping, however, they can create problems due to inappropriate care or falling fruit.<sup>184</sup>

## 2. Local Food Purchasing

Procurement policies that favor locally grown foods can help establish a market to support regional food production. In Cleveland, for example, an ordinance was passed in 2010 that requires the commissioner of purchases and supplies and each contracting department to develop a list of local food producers and businesses and to “endeavor to maximize” purchases from these sources.<sup>185</sup> It also favors contract bidders that are locally based and purchase twenty percent of their food locally.<sup>186</sup> Albany County, New York, has also enacted a policy to increase the percentage of local food consumed at the county’s residential healthcare and correctional facilities.<sup>187</sup> The policy recognizes that locally produced food supports the regional economy, requires less oil and gas, and provides nutritional benefits.<sup>188</sup> Furthermore, in early 2011, a proposal was

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182. SFENVIRONMENT, *San Francisco Urban Orchards Project*, [http://www.sfenvironment.org/our\\_programs/interests.html?ssi=6&ti=85&ii=242](http://www.sfenvironment.org/our_programs/interests.html?ssi=6&ti=85&ii=242) (last visited May 27, 2011).

183. *Id.*

184. *See, e.g.*, CAMBRIDGE, MA., CITY COUNCIL, HEALTH & ENVIRONMENT COMMITTEE REPORT #1 (May 11, 2009), *available at* [http://www2.cambridgema.gov/cityClerk/CommitteeReport.cfm?instance\\_id=466&pv=Yes](http://www2.cambridgema.gov/cityClerk/CommitteeReport.cfm?instance_id=466&pv=Yes) (discussing support and opposition to fruit and nut trees); James Mills, *Fruit and nutcases – Council threatens to cut down a street’s pear trees because of the dangers of falling fruit*, THE DAILY MAIL (UK) (Nov. 21, 2007, 10:28 PM), <http://www.dailymail.co.uk/news/article-495385/Fruit-nutcases--Council-threatens-cut-streets-pear-trees-dangers-falling-fruit.html> (discussing problems of falling pears in North London).

185. CITY OF CLEVELAND, OHIO, ORDINANCE at No. 1660-A-09.

186. *Id.* *See also* CLEVELAND – CUYAHOGA COUNTY FOOD POLICY COALITION, *Local Purchasing*, <http://cccfoodpolicy.org/working-group/local-purchasing> (last visited May 27, 2011).

187. ALBANY COUNTY, N.Y., RESOLUTION No. 496-a (Adopted Feb. 9, 2009), *available at* [http://www.farmlandinfo.org/documents/37953/Buy\\_Local\\_Law\\_Albany\\_County\\_\(3\).pdf](http://www.farmlandinfo.org/documents/37953/Buy_Local_Law_Albany_County_(3).pdf).

188. *Id.*

introduced in New York City to increase purchases of New York state food by city agencies.<sup>189</sup>

#### IV. CONCLUSION

The development and viability of sustainable local and regional foodsheds can be achieved through a combination of municipal comprehensive land use planning and targeted zoning and land use regulatory techniques that can encourage and promote food systems designed to serve the surrounding communities. The public health and environmental benefits of such actions are significant, as are the impacts on community sustainability. While this Article cites to dozens of emerging examples from communities across the country, which may be replicated and modified to meet the needs of a given jurisdiction, the reality is that the movement is still in its infancy. Local governments must incorporate food systems planning into all local land use planning and regulations to ensure a healthy future for all.

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189. See THE NEW YORK CITY COUNCIL, *A Local Law to Amend the Administrative code of the city of New York, in relation to the purchase of New York state food*, Int. No. 452, available at <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=828460&GUID=8B484573-3BE2-4A2D-8C13-425453936D04&Options=&Search=> (a history of legislation regarding a local law to amend the administrative code of the city of New York, in relation to the purchase of New York state food); Nevin Cohen, *NY Food Procurement Policy Debated in City Council*, URBAN FOOD POLICY BLOG, Feb. 28, 2011, <http://www.urbanfoodpolicy.com/2011/02/nys-food-procurement-policy-debated-in.html>.