



GROWTH AND RESOURCE MANAGEMENT DEPARTMENT  
PLANNING AND DEVELOPMENT SERVICES DIVISION  
CURRENT PLANNING ACTIVITY  
123 W. Indiana Avenue, DeLand, FL 32720  
(386) 736-5959

**TO:** Planning and Land Development Regulation Commission

**DATE:** April 10, 2012

**SUBJECT:** Ordinance No. 2012-XXX. County ordinance to add definition of community gardens and apply it to certain zoning classifications as a permitted principal and special exception use.

**STAFF:** Becky Mendez, AICP, Senior Planning Manager

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At the December 2011 PLDRC hearing, the commission recommended approval to rezone property from a Residential zoning classification to an Agricultural classification because the owners wished to pursue agricultural uses. The rezoning reduced future residential development potential (density) to allow agricultural operations today (growing crops). Instead of requiring a rezoning of property, staff researched the impacts of adding community gardens as a permitted/special exception use within certain residential areas.

On February 9, 2012, the county council authorized staff to research the issue.

On March 13, 2012, the PLDRC discussed the issue and reviewed the proposed code amendment that provides a definition of community gardens, adds it as a permitted principal use in the RR and RA zoning classification, and by special exception in the RE zoning classification. Staff included an analysis of the urban farming and community gardening trend. Because the trend is new, the impact of adding urban farming in commercial areas is unknown. Therefore, staff recommends an incremental approach, as drafted.

### Background

The county's zoning classifications can be categorized generally by type, which are agriculture (open space), residential, commercial, or industrial. The permitted uses allowed within the general zoning categories do not typically overlap into others.

For example, agricultural pursuits are not usually a permitted principal or permitted special exception use in a residential or commercial zoning classification. The zoning use table below indicates permitted principal use (P) and special exception (SE) by zoning classification. Segregating uses into general classifications is common zoning practice used to mitigate any negative impacts that may occur due to incompatible uses locating next to one another.

# COUNTY ZONING TABLE OF AGRICULTURAL USES

Uses	Ag/Open Space						Residential				Commercial/Industrial					
	FR	RC	A1	A2	A3	A4	MH 3	RR RA	RE	MH4 & MH8	B4	B5	B6	I-1	I-3	I-4
Aquaculture without excavations	P	P	P	P	P	P	P								P	
Apiaries	P	P	P	P	P	P	P									
Aviaries		P	P	P	P	P	P									
Pasture for the grazing, boarding or raising of livestock		P														
All agricultural pursuits, including the processing, packaging, storage and sale of agriculture products which are raised on the premises	P		P	P	P	P	P									
Silvicultural operations	P	P	P	P	P	P	P									
Worm raising	P	P	P	P	P	P	P									
Aquaculture with excavations	SE	SE	SE	SE	SE	SE	SE								SE	
Dairies and dairy products	SE	SE			SE	SE										
Hog or poultry farms	SE	SE		SE	SE	SE	SE									
Processing, packaging, storage, retail or wholesale sales of agricultural products not raised on the premises	SE	SE	SE	SE	SE	SE	SE									
Wholesale or retail fertilizer sales			SE	SE	SE	SE	SE									
Raising of crops and keeping of animals for personal use (not for resale), accessory to a single-family dwelling.								P		P						
Community gardens								P	SE							
Retail nursery											P					
Wholesale-retail nursery												P				
Curb market											SE	SE	SE			
Agricultural or farm implement mnfc.														P		P
Dairy products mnfc.														P		P
Feed and seed processing and storage														P		P
Grain blending and packaging, but not milling														P		P
Greenhouses														P		P
Fruit and vegetable processing and storage														P		P
Wholesale houses and distributors														P		P

The above uses are not permitted in C, RE, R1-R9, MH1, MH2, MH5-MH7, B1-B3, B7-B9, or I-2. Recent planning trends sometimes soften the demarcation between zoning classifications, and allow a mixing of uses when appropriate. As economies and demographics change, so do lifestyles, and local zoning codes can be adapted to meet these changes.

Urban farms and community gardens are a growing trend across the nation. *Urban farms* are typically a commercial operation that allows wholesale or retail sales of the plants grown on large sites. Commercial and industrial zoning classifications may allow them as a permitted use with conditions, and by special exception in residential areas. *Community gardens* are not for profit operations that grow plants on small lots to be used by the members or donated to other not for profit organizations. They are typically a permitted use in all zoning classifications.

### Strengths and Weaknesses

A possible downside to urban farms and/or community gardens is the potential for noise, traffic, and odor nuisance impacts on residential neighborhoods. This is why most communities regulate urban farming by special exception, and community gardens by permitted principal use conditions in residential areas. The conditions should accomplish the following at a minimum:

- Limit noise and traffic by controlling the hours of operation, use of motorized equipment, and size of plot
- Provide composting regulations to limit nuisance smells and vermin
- Regulate height of trellises and greenhouses to protect neighborhood character
- Prohibit synthetic chemical insecticides and herbicides and regulate irrigation

The communities that have adopted urban farming regulations, have done so because they wish to encourage health and nutrition values by providing a local supply of fresh produce. They believe that urban farming builds social relationships and may see economic increases by locally directed buying and selling of goods. Also, those communities view urban farming as potential green space infill development on otherwise vacant or unproductive property.

### Ordinance summary

The proposed zoning text amendment includes a definition of community gardens, as follows:

“Land that is cultivated by a group of people, rather than a single family or individual, for the purpose of growing fruits, vegetables, plants, flowers, or herbs, which may be processed, packed, stored, and sold on the premises.”

This draft definition combines the two concepts of urban farms and community gardening into a unified term. It does not allow commercial agricultural pursuits involving animals. As proposed, the use would be a permitted principal use in the RR and RA zoning classifications, which do not currently allow commercial agriculture, but do allow the raising of crops and keeping of animals for personal use only and accessory to the single-family dwelling. Adding the use to other residential (or commercial) zoning classifications would not be appropriate without principal use standards, or by special exception.

The draft ordinance also proposes community gardens by special exception in the RE zoning classification. Upon further research, the RE zoning classification does not exist on lands within unincorporated county. However, staff recommends adding community gardens to the RE zoning classification, because the classification could be assigned to property in the future.

The commission may recommend to the county council land development regulations, which implement the comprehensive plan (section 72-413 (c), zoning code). The following comprehensive plan policies apply to the proposed definition of community gardens:

- 1.2.2.12 Agriculture and silviculture operations shall adhere to accepted Best Management Practices (BMP's) for surface water management and erosion control.
- 1.3.2.5 Volusia County shall encourage economic development in rural areas by promoting the following:
  - a. Diversification of agricultural products.
  - b. Promoting tourism and recreational opportunities.
  - c. Allow for current business expansion.
- 1.4.1.5 The sale of agricultural products produced on site shall be permissible on that site.
- 1.4.1.6 The County shall provide incentives for the continuation of productive agricultural and silvicultural uses, such as allowing support uses inside the Agricultural and Forestry Resource designations.
- 1.4.1.7 The County Council may request the Agriculture Interrelations Advisory Committee to provide input on land development regulations or other ordinances that affect the agriculture industry.

The proposed ordinance further implements comprehensive plan policies 1.3.2.5, 1.4.1.5, and 1.4.1.6.

#### March PLDRC discussion

One member of the public spoke in favor of the draft amendment during the March 13, 2012 PLDRC discussion. The commission discussed the draft definition of community gardens, and clarified that the definition does not require group ownership, only group cultivation. The commission clarified that the ordinance allows customary community garden accessory structures.

Best management practices and state law requirements will further regulate the “processing” of the materials grown on property, and the Commission found this sufficient to move the draft ordinance forward for public hearing.

#### Staff recommendation

Forward draft Ordinance No. 2012-XXX to the county council for first hearing for approval to further implement the comprehensive plan regarding community gardens.

ORDINANCE 2012-

AN ORDINANCE OF THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, AMENDING THE CODE OF ORDINANCES OF THE COUNTY OF VOLUSIA, CHAPTER 72 LAND PLANNING, ARTICLE I DEFINITIONS AND INTERPRETATION, SECTION 72-2 DEFINITIONS, BY ADDING DEFINITION FOR COMMUNITY GARDEN; BY AMENDING DIVISION 7 ESTABLISHMENT OF CLASSIFICATIONS, SECTION 72-241 CLASSIFICATIONS, BY PROVIDING FOR COMMUNITY GARDENS AS PERMITTED PRINCIPAL USE IN RURAL RESIDENTIAL AND RURAL AGRICULTURAL ESTATE AND AS SPECIAL EXCEPTION IN RESIDENTIAL ESTATE; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING ORDINANCES; AND PROVIDING FOR AN EFFECTIVE DATE.

BE IT ORDAINED BY THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, AS FOLLOWS:

(Words in ~~strike through~~ type are deletions; words in underline type are additions.)

**SECTION I:** Chapter 72, article I, section 72-2, of the Code of Ordinances, County of Volusia is amended to read as follows:

**Sec. 72-2. Definitions.**

...

Community Garden: A property that is cultivated by a group of people, rather than a single family or individual, and used for the processing, packaging, storage, and sale of produce or other plants raised on the premises.

...

**SECTION II:** Chapter 72, article II, division 7, section 72-241, of the Code of Ordinances, County of Volusia is amended to read as follows:

1 **Sec. 72-241. Classifications.**

2  
3 ...

4  
5 RR RURAL RESIDENTIAL CLASSIFICATION

6  
7 ...

8  
9 *Permitted principal uses and structures:* In the RR Rural Residential  
10 Classification, no premises shall be used except for the following uses and their  
11 customary accessory uses or structures:

12 Communication towers not exceeding 70 feet in height above ground level.

13 Community Garden.

14 Essential utility services.

15 Exempt excavations (refer to subsection 72-293(15)) and/or those which comply  
16 with division 8 of the Land Development Code of Volusia County [article  
17 III] and/or final site plan review procedures of this article.

18 Exempt landfills (refer to subsection 72-293(16)).

19 Fire stations.

20 Hobby breeder.

21 Home occupations, class A (refer to section 72-283).

22 Houses of worship.

23 Parks and recreation areas accessory to residential developments.

24 Public schools.

25 Publicly owned parks and recreational areas.

26 Publicly owned or regulated water supply wells.

1 Raising of crops and keeping of animals for personal use (not for resale),  
2 accessory to a single-family dwelling. The personal use restriction is not  
3 intended to apply to 4-H, FFA or similar educational projects.

4 Single-family standard or manufactured modular dwelling.

5 ...

6 RA RURAL AGRICULTURAL ESTATE  
7 CLASSIFICATION  
8 ...

9 *Permitted principal uses and structures:* In the RA Rural Agricultural Estate  
10 Classification, no premises shall be used except for the following uses and their  
11 customary accessory uses or structures:

12 Communication towers not exceeding 70 feet in height above ground level.

13 Community Garden.

14 Exempt excavations (refer to subsection 72-293(15)) and/or those which comply  
15 with division 8 of the Land Development Code of Volusia County [article  
16 III] and/or final site plan review procedures of this article.

17 Exempt landfills (refer to subsection 72-293(16)).

18 Essential utility services.

19 Fire stations.

20 Hobby breeder.

21 Home occupations, class A (refer to section 72-283).

22 Houses of worship.

23 Parks and recreation areas accessory to residential developments.

24 Public schools.

1 Publicly owned parks and recreational areas.

2 Publicly owned or regulated water supply wells.

3 Raising of crops and keeping of animals, including aviaries, pisciculture, apiaries  
4 and worm raising for personal use (not for resale), accessory to a single-  
5 family dwelling. The personal use restriction is not intended to apply to 4-  
6 H, FFA or similar educational projects.

7 Single-family standard or manufactured modular dwelling.

8 ...

9 RE RESIDENTIAL ESTATE  
10 CLASSIFICATION

11 ...  
12

13 *Permitted special exceptions:* Additional regulations/requirements governing  
14 permitted special exceptions are located in sections 72-293 and 72-415 of this article.

15 Bed and breakfast (refer to subsection 72-293(19)).

16 Cemeteries (refer to subsection 72-293(4)).

17 Communication towers exceeding 70 feet in height above ground level.

18 Community Garden.

19 Day care centers (refer to subsection 72-293(6)).

20 Dogs and cats boarded as personal pets exceeding the number permitted in  
21 subsection 72-306(a).

22 Excavations only for stormwater retention ponds for which a permit is required by  
23 this article.

24 Garage apartments.



1 Off-street parking areas (refer to subsection 72-293(14)).

2 Public utility uses and structures (refer to subsection 72-293(1)).

3 Recreational areas (refer to subsection 72-293(3)).

4 Schools, parochial or private (refer to subsection 72-293(4)).

5 ...

6 **SECTION III: AUTHORIZING INCLUSION IN CODE** - The provisions of this  
7 ordinance shall be included and incorporated into the Code of Ordinances of the County  
8 of Volusia, as additions or amendments thereto, and shall be appropriately renumbered  
9 to conform to the uniform numbering system of the code.

10 **SECTION IV: SEVERABILITY** - Should any word, phrase, sentence, subsection  
11 or section be held by a court of competent jurisdiction to be illegal, void, unenforceable,  
12 or unconstitutional, then that word, phrase, sentence, subsection or section so held  
13 shall be severed from this ordinance and all other words, phrases, sentences,  
14 subsections, or sections shall remain in full force and effect.

15 **SECTION V: CONFLICTING ORDINANCES** - All ordinances, or part thereof, in  
16 conflict herewith are, to the extent of such conflict, repealed.

17 **SECTION VI: EFFECTIVE DATE** - A certified copy of this Ordinance shall be  
18 filed with the Department of State by the County Manager within ten (10) days after  
19 enactment by the County Council and this Ordinance shall take effect upon filing with  
20 the Department of State.

21 **ADOPTED BY THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, IN**  
22 **OPEN MEETING DULY ASSEMBLED IN THE COUNTY COUNCIL CHAMBERS AT**  
23 **THE THOMAS C. KELLY ADMINISTRATION CENTER, 123 WEST INDIANA**  
24 **AVENUE, DELAND, FLORIDA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D., 2012.**  
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ATTEST:

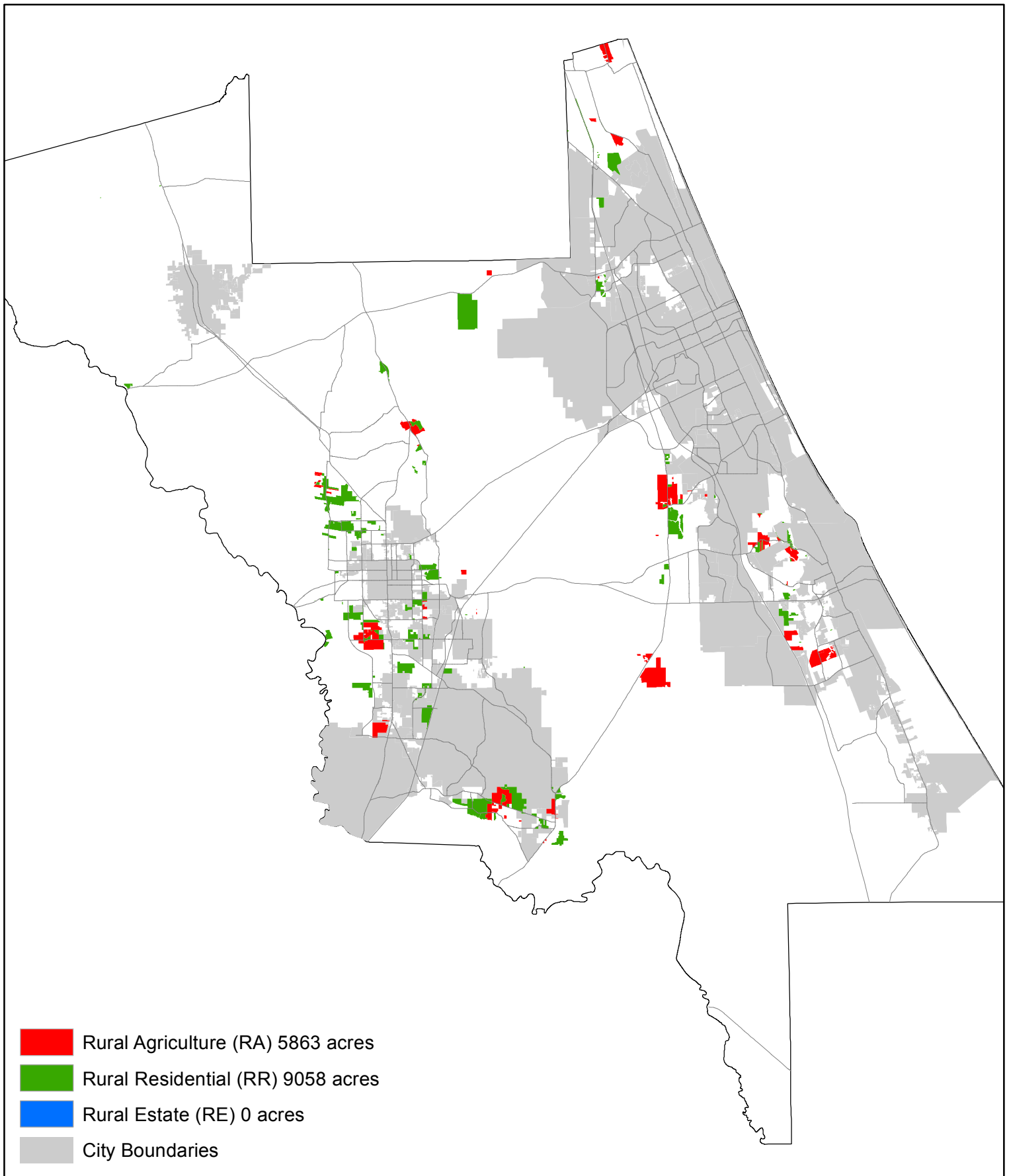
COUNTY COUNCIL  
COUNTY OF VOLUSIA, FLORIDA

\_\_\_\_\_  
James T. Dinneen, County Manager

\_\_\_\_\_  
Frank T. Bruno, Jr., County Chair

DRAFT

# Proposed Community Garden Zoning Districts



## Zoning

N  
2/9/2012  
1 in = 34,000 feet

# ZONING PRACTICE

MARCH 2010



AMERICAN PLANNING ASSOCIATION

➔ ISSUE NUMBER 3

**PRACTICE URBAN AGRICULTURE**

A large, bold, black number '3' is positioned in the lower right corner of the cover. The background of the entire cover is a green-tinted photograph of a chicken, likely a Bantam variety, standing behind a wooden fence. The chicken's head is turned towards the right, and its long, flowing feathers are visible. The fence is made of vertical wooden posts and horizontal rails, creating a geometric pattern that intersects with the chicken's form.

# Zoning for Urban Agriculture

Nina Mukherji and Alfonso Morales

As sustainability has moved up the municipal agenda, cities have begun to take an interest in urban agriculture as a way to promote health, to support economic and community development, and to improve the urban environment.



Growing Power

➡ Growing Power has nine aquaponics systems at their Milwaukee site. They raise tilapia and yellow perch in tanks, and the wastewater from the tanks is used to fertilize and irrigate crops.

Urban agriculture can include a number of food production and distribution-related activities, which for our purposes include food production through plant cultivation or animal husbandry, as well as some nonindustrial processing and distribution of that food.

Examples of innovative urban agriculture projects abound. Growing Power, a rapidly expanding nonprofit with operations in Milwaukee and Chicago, grows food in greenhouses heated and supplied with soil by worm composting. The produce is sold to neighborhood residents who might not otherwise have access to inexpensive fresh produce. Growing Power engages hundreds of local school children and others in farming, as volunteers, interns, or students of their seminars, and the organization is also starting a program to provide locally grown snacks to Milwaukee public schools.

In addition to providing fresh food in areas that are short on grocery stores, urban agriculture can be a source of culturally significant foods that are not available in typical grocery stores. This is exemplified in Holyoke, Massachusetts, with the work of *Nuestras Raíces* ([www.nuestras-raices.org](http://www.nuestras-raices.org)), which aims to help the Puerto Rican community “maintain a connection to their culture while putting down roots in their new home.” In Chicago, Growing Home is a job training program and organic urban farm for homeless people and former inmates. And on the West Coast, Seattle’s P-Patch program includes market gardens that residents cultivate as they would community gardens. They then sell the produce through a community supported agriculture (CSA) program.

Urban agricultural activities are affected by municipal policy. Some cities

actively promote urban agriculture through funding, land donations, or protective zoning. Unfortunately, local policies can also present barriers to urban agriculture, particularly when restrictive zoning makes urban agriculture difficult. Frequently, these policy barriers are unintentional.

Urban agriculture can include temporary uses or more permanent responses to local food deserts, consumer demand, economic inequality, and mobility-constrained populations. When properly sited, urban agriculture projects provide neighborhood amenities and can contribute to a positive community image. Because of the diversity of its forms and benefits, urban agriculture can be seen as a powerful tool in a planner’s repertoire. This article places urban agriculture in a historical context, examines regulatory approaches, and makes recommendations for planning and zoning practice.

## URBAN AGRICULTURE IN THE UNITED STATES

Urban gardening, a major component of urban agriculture, has a long history in the United States. Urban garden programs are frequently cooperative enterprises providing space and resources for city dwellers to grow vegetables and flowers, such as relief gardens, children’s gardens, neighborhood gardens, and entrepreneurial gardens.

The history of urban gardening begins with school gardens and vacant-lot cultivation efforts during the recession of the late 1800s, which were followed by the school garden movement and civic improvement gardens inspired by the City Beautiful movement. Citizens groups, which were sometimes supported by city governments, typically organized these early efforts in urban farming.

During the turmoil of World War I, the Great Depression, and World War II, urban agriculture was largely a tool of food security. In



## ASK THE AUTHOR JOIN US ONLINE!

Go online from April 5 to 16 to participate in our “Ask the Author” forum, an interactive feature of *Zoning Practice*. Nina Mukherji and Alfonso Morales will be available to answer questions about this article. Go to the APA website at [www.planning.org](http://www.planning.org) and follow the links to the Ask the Author section. From there, just submit your questions about the article using the e-mail link. The author will reply, and *Zoning Practice* will post the answers cumulatively on the website for the benefit of all subscribers. This feature will be available for selected issues of *Zoning Practice* at announced times. After each online discussion is closed, the answers will be saved in an online archive available through the APA *Zoning Practice* webpages.

### About the Authors

Nina Mukherji received her master’s degree in conservation biology and sustainable development from the University of Wisconsin–Madison. Her thesis was titled, *The Promise and the Pitfalls of Municipal Policy for Urban Agriculture*. She now lives in Boston.

Alfonso Morales is assistant professor of Urban and Regional Planning at the University of Wisconsin–Madison. He is the co-editor of [openair.org](http://openair.org) and the author of numerous food system and community economic development publications, including “Healthy Food Outside” in the *Journal of Health Law and Policy* and “Public Markets as Tools of Community Development” in the *Journal of Planning Education and Research*.

contrast to prior gardening movements, these relief and victory gardens were legitimized and supported by federal government education campaigns, and they provided nutrition and psychological support in hard times.

Retail grocers have displaced the decentralized food production of urban gardening efforts. Thus, instead of federal efforts to foster gardening as the urbanite’s “citizen duty,” gardening became the suburbanite’s hobby. As the role of government faded, urban gardening became a niche activity until revived by concerns in the 1960s and ’70s over the energy crisis, food quality and price, environmental problems, and urban decline. Unlike in the past, however, government ignored this reemergence. Instead, gardens were part of community organizing efforts that spawned many local and national organizations devoted to community greening in a broad social and physical sense. Over the course of the next few decades gardening gained momentum, and numerous organizations sprang up to experiment with new models of intensive urban agriculture to generate income, particularly in deindustrialized cities with ample vacant land and not enough jobs.

In the 1990s and 2000s, urban agriculture was marginalized and occasionally imperiled by the development boom and gentrification. However, responsive cities began formulating policy to protect and encourage urban agriculture in response to community pressure, but also from the recognition that urban agriculture can improve public health, contribute to neighborhood revitalization and community economic development, and help promote “green” cities.

Efforts by cities to foster urban agriculture take various forms. Roughly, they play three roles:

1. to address urban agriculture as a component of land-use and food policy in planning processes;
2. to create, enable, or fund community garden programs and urban agriculture organizations; and
3. to create zoning and permitting processes that are friendly to urban agriculture.

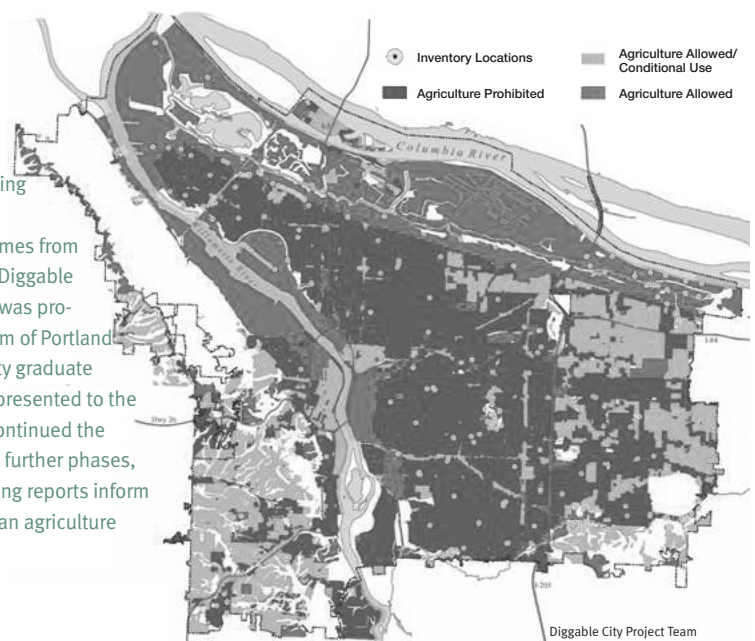
While the bulk of our discussion will focus on zoning, we will start with an overview of other planning and programming techniques that cities use to support urban agriculture.

### URBAN AGRICULTURE IN THE PLANNING PROCESS

Food policy councils (FPCs) are a relatively recent organizational innovation. They typically operate at the city or county level, some-

times in collaboration with government and community members and sometimes as a nongovernmental advocacy effort. They often include experts in health, farming, planning, education, and food access. The Portland/Multnomah County Food Policy Council in Oregon exemplifies a “strong” version of a FPC in that it seeks to develop policy and advise government in policy implementation. In Portland, the FPC interfaces directly with a city official who coordinates programs related to urban agriculture and local food. Portland describes its food systems planning efforts in two reports: *Diggable City* (2005), which includes an inventory of the city’s available vacant land and a map of the city color-coded by how its zoning affects urban agriculture, and *Food Cartology* (2008), which explains the benefits of street food and includes design requirements for food carts.

➡ This map of Portland’s zoning as it relates to agricultural comes from Phase I of the Diggable City project. It was produced by a team of Portland State University graduate students and presented to the city. The city continued the process in two further phases, and the resulting reports inform Portland’s urban agriculture policy.



Urban agriculture has been considered in a number of recent comprehensive plans and neighborhood plans. In Seattle, the 2005 comprehensive plan requires at least one community garden for every 2,500 households in an urban village or neighborhood (Seattle Comprehensive Plan, Urban Village Appendix B). In response to public pressure, Vancouver, British Columbia, created a multidisciplinary taskforce representing various government offices and tasked it with developing recommendations for urban agriculture throughout the city (City of Vancouver, Community Services Group memo, January, 2009). Similarly, Milwaukee has urban agriculture advocates on almost every committee for its comprehensive plan revision process.

In addition to land-use planning, some cities have developed sustainability plans that address food issues, including urban agriculture. The Office of Environmental Quality in Kansas City, Missouri, included a detailed set of recommendations to promote urban agriculture in its Climate Protection Plan. The 2009 Baltimore Sustainability Plan addresses both production and distribution of local food, with specific provisions about urban agriculture. There is, for instance, a recommendation to “identify the predicted demand for urban farmed food and recommend location and distribution of urban agricultural institutions” (Baltimore Sustainability Plan, Greening Chapter). Finally, Mayor Gavin Newsom of San Francisco declared food system planning the responsibility of city government (Executive Directive, July 2009).

### URBAN AGRICULTURE PROGRAMS

Other municipal efforts use city resources to address barriers to urban agriculture including access to land, soil, and water, as well as funding for development and administrative infrastructure.

Some cities donate or lease vacant land to land trusts that organize community gardens. Examples include Boston’s Grassroots program and Chicago’s Neighborspace, a city-sponsored program that allows residents to use city parks for gardening. In addition to donating land, Boston provides free shipments of compost to the gardens.

Several cities offer their gardeners and farmers discounted rates on municipal water, though the infrastructure for water varies by region. Some cities, including Madison, Wisconsin, and Boston, use Com-

munity Development Block Grants funds to develop urban agriculture projects, and other cities, such as Portland, Oregon, and New York organize community garden programs. Additionally, many cities coordinate or support farmers or public markets, either through an office of special events or through a planning or economic development agency.

tions to permit a wide range of agricultural activities, including raising crops and animals, in designated agricultural districts in rural areas or on the urban fringe. This approach is being extended to urban agriculture in some cities, including Cleveland and Boston. Another approach is to treat urban agriculture as a use or set of uses that are permitted, conditional, or forbidden,



Molly McCullagh

City Farm leases a site slated for future development from the City of Chicago. The farm sells much of its food to local high-end restaurants.

### ZONING AND URBAN AGRICULTURE

Unlike comprehensive planning and programs used to promote urban agriculture, zoning is typically a restrictive, regulatory mechanism. However, planners interested in urban agriculture can do valuable work by reviewing and redesigning ordinances related to urban agriculture. For instance, landscaping rules that require all lawn vegetation to be below a certain height stymie urban agriculture. Evaluating and reconstructing such ordinances reduces this type of unintended barrier to urban agriculture.

Part of this reconstruction will include enabling agricultural uses not traditionally referenced in zoning, such as limited beekeeping. In some cases, zoning could be used to legitimize urban agricultural activities. Adding an urban agricultural zoning designation, for instance, may protect urban farms or community gardens from rapid development when land tenure is otherwise unsteady.

In zoning, urban agriculture can be treated either as a district or as a use category. It is common for local zoning regula-

depending on the district. Both approaches have merit, and as we will see, they are not mutually exclusive.

It may be helpful for planners to think of agriculture in four categories based on two dimensions: the extent or dispersal of agricultural practices and the intensity of urban agricultural activities. The first category, extensive/intensive agriculture, includes rural and periurban farming and associated activities. The second category, less extensive/intensive urban agriculture, describes urban farms and farmers markets. The third category, extensive/less intensive urban agriculture, applies to backyard and community gardens. The fourth category implies little urban agricultural activity. This less extensive/less intensive urban agriculture was the situation in most cities until fairly recently, mostly due to the diminished interest in these activities in the mid-20th century. Here, home gardening is contingent on personal interest but is neither encouraged nor discouraged; community gardens exist, but irregularly and often outside regulatory regimes.

When trying to encourage urban agriculture as a tool for economic development, cities may want to foster intensive urban agriculture through permissive uses, but to prevent nuisance they may want to limit the extent of those uses—either by making the use conditional or by confining it to specific districts. To encourage more widespread food production opportunities and small-scale retail, planners will want to make sure that at least some agricultural uses are permitted in districts encompassing large areas of the city.

### Extensive/Intensive Agriculture

Extensive agriculture is accounted for in many municipalities, usually through permissive districts that allow many types and scales of cultivation, animal husbandry, agriculture-related structures, and some farm-related commercial activity. This sort of activity tends to be allowed on the edges of cities in areas that are specifically designated for agriculture, though in fast-expanding cities this designation may be considered temporary. In some places, lots may retain an agricultural designation even in the midst of urban development.

### Less Extensive/Intensive Agriculture

Our definition of less extensive/intensive urban agriculture includes large urban

grow up through anomalies (e.g., special arrangements with neighborhoods and government or agriculture districts that became surrounded by development).

Municipalities may wish to do more to encourage this sort of urban agriculture, since it has the potential to create jobs, provide large-scale job training, foster community development, fill gaps in food access, and provide green space. To illustrate, Troy Gardens in Madison is an excellent example of a multiuse project including housing, education, and urban agriculture. To encourage sustainable practices we advise local governments to establish partnerships with or between nonprofit organizations that seek broad community economic development goals (such as “triple-bottom-line” businesses). Despite the benefits of intensive urban agriculture, urban farms could be a source of nuisance complaints. For this reason, we recommend tailoring ordinances to encourage more sustainable land-use practices and to avoid urban agriculture projects that resemble less desirable commercial or industrial activities (these could, for example, restrict the use of pesticides and fertilizer or limit the amount of livestock allowed).

As we mentioned above, appropriate designations can foster urban agriculture. Some cities create separate urban agricul-

also a conditional use in medium-density residential districts and some commercial (mostly retail) districts.

Similarly, Milwaukee has a liberal agricultural use category that is permitted in all residential and industrial districts, and Nashville includes both commercial and noncommercial community garden uses in its zoning ordinance. Although it may seem more proactive for a city to create an urban agriculture district, the existence of an agricultural use category, which is permitted in existing districts, is more important for supporting widespread urban agriculture.

Creating a designated urban agriculture district serves two functions. The first is to allow intensive urban agriculture under specific conditions. The second is to address land tenure. Many community gardens and urban farms face ambiguous land tenure, for instance, if they are run by a nonprofit that leases land for a nominal sum. An urban agricultural designation can protect a garden or farm if agriculture is a particularly good use for that parcel. This rationale may apply when a parcel contains a long-established garden that serves an important social or cultural function, when an agricultural use can help to supply food to an area underserved by grocery stores, when the garden or farm serves an educational purpose, when the parcel helps to fulfill an open space goal, or when the use is in an environmentally sensitive area that should not be developed. If a city wants to protect a garden from future changes, an urban garden designation creates a hurdle for future development.

Cleveland, Chattanooga, and Boston all have specific urban agriculture districts. Cleveland’s Urban Garden District uses a broad definition for urban gardens. Community gardens and market gardens are the main permitted uses, and on-site sales are allowed, along with greenhouses and hoop houses. However, building height and lot coverage are limited (Cleveland Zoning Code Title 7, Chapter 336).

Chattanooga’s Urban Agriculture District is even more permissive, allowing dairies and stables in addition to crops and a range of livestock. The district also can take the form of a planned unit development that includes residential uses. However, it has a minimum area requirement of 20 acres, making it more useful for promoting agriculture at the periphery than smaller farms in denser urban neighborhoods (Chattanooga Zoning Ordinance, Article V, Section 1600).

	INTENSIVE	LESS INTENSIVE
Extensive in Area	rural or periurban farms and associated agricultural activities	backyard and community gardens, limited livestock, and farmstands
Less Extensive in Area	urban farms, farmers markets, and composting operations	backyard and community gardens

markets, such as the Dane County Farmers market around the Wisconsin state capitol in Madison; nonindustrial food processing operations, such as small-scale commercial production of fruit preserves; and large urban farming initiatives such as Growing Power, the Urban Farm at Stapleton near Denver, and Zenger Farms in Portland, Oregon. We group large markets, food processing, and urban farms together because these uses can have large-scale impacts. However, in practice, planners may want to further subdivide this category in order to address the specific effects of different uses (e.g., the noise and smells associated with animals or the traffic and parking issues associated with markets). Less extensive/intensive urban agriculture rarely has a place in older zoning codes, and these uses often

ture districts that are more limited than a rural agriculture designation, but allow for animal husbandry, commercial production, and sales. Another strategy is to create a use category or categories for urban agricultural activities that can be applied selectively in existing districts.

The use strategy is exemplified by Portland, Oregon, which has an “agriculture” use category that “includes activities that raise, produce or keep plants or animals.” Some accessory structures are permitted, although feed lots, food processing, livestock auctions, and retail plant nurseries are specifically mentioned under different use categories (Portland Zoning Code Sec. 33.920.500). This agriculture use category is permitted by right in all industrial districts and low-density residential districts. It is



## Cities have recently loosened restrictions on keeping livestock in limited numbers or in areas where it would not be a nuisance.

Boston takes a hybrid approach and has a particular community garden subdistrict as well as use categories that include urban agricultural activities. Boston has a widely used Community Garden subdistrict, one of its nine Open Space subdistricts. In addition, Boston has several relevant use categories. These include two open space categories that specifically mention gardens. Boston also has the Olmsted Green Smart Growth Overlay Zone, where there is a use category for “food production uses, including a farm, garden, food production center and/or incubator and food-oriented retail,” permitted in the mixed use part of the zone. Chicago and Milwaukee are also in the process of creating overlay districts with particularly permissive language about urban agriculture to encourage urban agriculture incubator businesses as a tool for urban revitalization.

### Extensive/Less Intensive Urban Agriculture

In addition to intensive urban agricultural activities, a city might want to foster much more widespread urban agricultural activity, such as backyard vegetable gardens, community gardens, school and church gardens, street vendors and small markets, farm stands, CSAs, and limited animal husbandry. While intensive urban agriculture can be addressed with specific district designations, it is impossible to address urban agriculture completely without looking at agricultural uses for districts not specifically designated as agricultural. In many cases, this involves rethinking existing restrictions to gardening and urban agriculture.

Several cities list community gardens as a permitted use in almost all industrial, residential, and commercial districts. Many cities also explicitly permit home gardens in their residential districts. To promote widespread urban food production, planners should reconsider provisions limiting the height of vegetation growing in yards or rights-of-way, which could be ideal sites for food production. If there is a desire to maintain a neat, landscaped aesthetic, a revision can require that food crops be used as edible landscaping. For instance, Sacramento had a front landscape regulation that required all front yards to be landscaped, irrigated, and maintained with low ground

cover or turf. In 2007, the city revised the code, so that landscaping could include edible annuals, perennials, and other design elements “when integrated as part of the landscape” (Ordinance No. 2007-025, amending section 17.68.010 of the Sacramento City Code). Note that this ordinance does not specifically enable edible landscaping, but does so implicitly by removing the overly restrictive provisions.

Gardening is a potential source of income as well as a potential source of food. To facilitate this income potential it may be helpful to permit small farmstands in community gardens, and to make sure that area limits in home occupation language do not preclude selling homegrown produce.

➡ This backyard goat and chicken coop in Portland, Oregon, was permitted as a special use after a site inspection.



Michelle Cushing

Cities can be squeamish about permitting livestock, but a limited number of chickens or bees rarely causes a nuisance. In the Madison Zoning Code (Sec. 28.08(9)(b)7c, up to four chickens are permitted on a lot with up to four dwelling units, and the ordinance specifically requires a small coop and forbids roosters and chicken slaughtering. In 2008, Denver passed Council Bill 548, revising its zoning to permit beekeeping on residential lots.

Other cities have recently loosened restrictions on keeping livestock in limited numbers or in areas where it would not be a nuisance. For example, in Portland, Oregon, citizens can apply for a permit for livestock facility with the consent of property owners

within 150 feet of the site. Residents may keep up to three chickens, ducks, doves, pigeons, pygmy goats, or rabbits without a permit (Portland City Code, Section 13.05.015). In San Antonio, bovines, equines, sheep, and goats are permitted when space requirements are met (San Antonio Code of Ordinances, Article III, Section 5-52).

Soil is a common concern for urban farmers. Most urban farming and gardening is done on sites with at least some soil contamination. To avoid health hazards, gardeners can use raised beds, and some cities explicitly require them for all community gardens. While raised beds can solve the problem of contamination, they require sources of topsoil. Composting can be a good way to generate this soil. In some cities, composting on a household basis may be implicitly permitted, but if there are strict requirements about what is allowed in yard areas, it might be worthwhile to specifically allow compost bins or piles, or to create a compost pickup program, as San Francisco has

done. Where there are concerns about compost as a nuisance, cities such as Chicago use nuisance control provisions or development standards to ensure that composting does not become a public health risk (Chicago Municipal Code, Sections 7-28-710 and 7-28-715).

In northern climates, greenhouses, hoop houses, and fish tanks and other aquaculture structures can help extend the growing season. Cities can show support for agricultural activities by removing restrictions on these specific accessory structures.

### Gray Areas

The typology we have suggested is a loose one. One city may consider a given activity



➔ Madison's Atwood Community Garden, along the Capital City Bike Trail, is part of an open space corridor between the nearby urban neighborhood and Lake Monona.

intensive urban agricultural, while another city may consider the same activity as less intensive and may want to promote it on a wide scale. We suggest that cities use broad definitions and permissive development standards that promote creative experimentation from organizations and citizens. While this experimentation won't always be free of conflict, we believe the benefits of a permissive approach will help reconcile differences and promote positive relationships.

When considering policy changes, it may be helpful for planners to consider the following questions:

- What are the possible urban agriculture activities for our city?
- What can be allowed in a widespread way with little controversy?
- What can be allowed, but controlled?
- What can be allowed, but only in some places?
- Are there some places where specific activities should be particularly encouraged?
- Who are the likely participants and how can positive relationships be fostered?

#### A NOTE ON SITING

While home gardens are likely to pop up all over a city, the siting of larger urban agriculture projects requires more thought. If a project is a significant food source, it should be encouraged in areas that have a dearth of fresh food. Likewise, projects that combine elements of urban agriculture, like production and distribution, can be combined; an example is when Ann Arbor, Michigan, rehabilitated its public market and linked it to farmland protected by purchase of development rights.

Medium-sized projects, such as community gardens, should be widely distributed to promote accessibility and enhance

benefits in a number of neighborhoods. It may be effective to recommend urban agriculture as a form of open space for planned unit developments (PUDs). Troy Gardens in Madison is an example of a PUD that completely integrates urban agriculture—including community gardens, an organic farm, and a CSA—into a housing development.

There may also be advantages to concentrating urban agriculture in particular neighborhoods or corridors. If there are a lot of home gardens or community gardens in a neighborhood, it can increase home values and give the neighborhood character and identity, as with the pocket gardens on the Lower East Side of New York.

In addition, contiguous urban gardens, interpolated with other kinds of open space, can create corridors for wildlife and recreation. In Madison, a stretch of a bike path is lined by the Atwood Community Garden on one side and prairie restoration on the other, providing a pleasant open space corridor that attracts wild-

life and residents. To promote this form, cities design districts to promote green design, open space, alternative transit, or wildlife.

Besides regulatory tools influencing the siting of urban agriculture, cities strategically use sales and leases of vacant land to influence the distribution of gardens and farms. Urban agriculture may also be recommended for particular areas in neighborhood or comprehensive plans.

#### CONCLUSION

Local planners can play an important role in promoting urban agriculture and shaping the direction it takes. Because there are many forms of urban agriculture and many different purposes that it can serve, charting a policy course can be complex. The first priority for planners should be to reexamine existing policy barriers in light of opportunities, public goals, and relevant stakeholders. Urban agriculture offers an array of activities at many different scales; it presents a classic planning opportunity for responding to and promoting community participation in civic, social, political, and economic life.

By no means is zoning the only way to promote urban agriculture. In cities that have ambitions to rapidly expand urban agricultural opportunities, it may be necessary to make land and funding available. In many cases, the demand for urban agriculture, such as community garden plots, is not nearly being met. Partnering with nongovernmental organizations such as community groups, businesses, and land trusts can be an effective way of directing resources toward urban agriculture without having to devote significant resources to management or oversight.

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WHAT DO YOU HAVE GROWING  
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