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“Perennial Growth” in a Shrinking City: A Case Study of Urban Agriculture Policy and Planning in Cleveland, Ohio

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“Perennial Growth” in a Shrinking City:
A Case Study of Urban Agriculture Policy and Planning in Cleveland, Ohio

A Thesis
Presented In
Partial Fulfillment of the
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BY
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Abstract

Shrinking cities in the United States have undergone massive physical transformations in the wake of significant population loss and economic decline. In particular, these cities are challenged by the growing presence of vacant land and the need to find new policy and planning strategies for managing this land. This paper examines the role of urban agriculture as one such strategy within the local context of Cleveland, Ohio. This paper presents an analysis of the city’s growing urban agriculture movement with a focus on municipal policies supporting the practice of urban agriculture, including eighteen interviews with individuals knowledgeable about the development of local policy in Cleveland. The findings suggest that municipal government has been a key advocate for urban agriculture as a strategy within comprehensive efforts to revitalize areas of the city that have an abundance of vacant land.
Acknowledgements

To all of the interview participants in Cleveland, thank you for giving so generously of your time and knowledge for this research.

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To my family and friends, thank you for your loving and patient support without which none of this would have been possible.
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Chapter 1
Introduction and Background

“Municipal governments should start with the right question: What can urban agriculture do for my city (not what can my city do for it)?”
- Luc J.A. Mougeot (2006)

The practice of urban agriculture is on the rise in cities across the United States. Although growing food in cities is by no means a novel idea – it has been practiced for thousands of years – today urban residents are embracing the local food production and recognizing its value in contributing to the social, economic, and environmental sustainability of cities. The growth of urban agriculture activity is a particularly compelling development in cities that have abundant vacant land. This introductory chapter will set up the framework for an exploration of urban agriculture in the context of the shrinking city (Oswalt 2005).

Introduction

Since the middle of the twentieth century a number of cities in the U.S., particularly those in the Rust Belt, have undergone a complex transformation characterized by significant population loss and economic decline – a phenomenon referred to in the urban planning literature as “shrinking” (Oswalt 2005; Hollander, et al. 2009). The most visible manifestation of this transformation can be found in the growing prevalence of vacant and abandoned land – a potential resource that is prevalent in cities facing weak demand for traditional forms of development.

Municipal governments in shrinking cities face enormous challenges due to the fact that modern urban planning evolved specifically to deal with managing urban growth and its impacts (Popper and Popper 2002). With few existing policy and planning models to help them meet the challenge, municipal governments must seek out new and innovative strategies for putting vacant
land back to productive use without relying on traditional forms of urban development. Agriculture is one such strategy.

This research presents a case study of Cleveland’s experience with urban agriculture from a municipal policy and planning perspective. Cleveland is an important example among cities that are dealing with the effects of urban shrinkage by accepting the realities of smaller population and thinking strategically about planning for the city’s future. In particular, urban agriculture is becoming an important part of the city’s overall strategy for repurposing vacant land.

This research comes at a time when policymakers, planners, and scholars are in need of examples of how urban agriculture is conceived of in policy and planning terms and subsequently implemented. Although it is perhaps too early to judge Cleveland’s success in this regard, it serves as an important study in the prospects and challenges of supporting urban agriculture through municipal policy and planning.

This introductory chapter begins with a brief introduction to the concept of the shrinking city and its application to cities in the United States, including a discussion of the particular challenges associated with vacant land, potential solutions, and ending with their application to the city of Cleveland. Chapter 2 presents a brief history of the modern urban agriculture movement in the U.S. and a review of the literature exploring the benefits and some of the constraints on practicing urban agriculture within cities. Chapter 3 outlines the research methods and Chapter 4 presents the results of the case study on Cleveland’s experience with urban agriculture. Chapter 5 concludes with a summary of key findings from Cleveland’s experience with urban agriculture, the challenges and prospects for urban agriculture in Cleveland in the future, as well as study limitations and directions for future research.
Background

The second part of this introductory chapter, this section will provide greater context and background information on Cleveland’s stature as a so-called “shrinking city,” with a focus on the inherent challenges stemming from significant population loss and economic decline.

The Shrinking City Concept

Cities throughout history have gone through cycles of growth and stagnation. Shrinking cities are characterized by a significant decline in population and economic activity (Oswalt 2005). The phenomenon of the shrinking city is global in scope and in recent years has begun to draw the attention of policymakers and planners who have started to view the shrinking city as presenting a set of unique challenges requiring alternative policy and planning strategies. Hollander, et al. (2009) report that in the last 50 years, 370 cities worldwide with populations over 100,000 have shrunk by at least 10%. Furthermore, many other cities in the U.S., Canada, Europe, and Japan are projected to see double-digit population declines in the future.

Shrinking cities are also an emerging area of research, particularly in the United States. The term “shrinking cities” has become well known in recent years as a result of the Shrinking Cities International (SCI) project, a research effort funded in part by the German government to look at the incidence of shrinking cities around the world (Axel-Lute 2007). In the United States, however, interest in shrinking cities is a much newer development as urban planning has traditionally focused on managing urban growth as opposed to decline. The propensity for planners to equate population loss as the acceptance of an unhealthy decline has also deterred research (Pallagst 2008, Hollander et al. 2009).

Studying shrinking cities is important since this long-term trend seem unlikely to be reversed in the foreseeable future. As a result, traditional policy and planning strategies geared
toward population growth may no longer be appropriate (Mallach and Brachman 2010). As such, Hollander, et al. (2009, 223-224) notes that urban policymakers and planners must begin to view urban shrinkage as “a unique position to reframe decline as opportunity: a chance to re-envision cities and to explore non-traditional approaches to their growth at a time when cities desperately need them.”

Shrinking Cities in the United States

Schilling and Logan (2008) define shrinking cities in the United States as a group of older industrial cities that have experienced significant and sustained population loss (amounting to a loss of 25% or more) since the middle of the 20th century. Based on this definition, half of the 20 largest cities in the United States in 1950 are now shrinking cities:

Table 1: Shrinking Cities in the U.S.

<table>
<thead>
<tr>
<th>1950 Rank by Population</th>
<th>City</th>
<th>1950 Population</th>
<th>2010 Population Estimate</th>
<th>% Change in Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Chicago, IL</td>
<td>3,620,962</td>
<td>2,695,598</td>
<td>-25.6%</td>
</tr>
<tr>
<td>3</td>
<td>Philadelphia, PA</td>
<td>2,071,605</td>
<td>1,526,006</td>
<td>-26.3%</td>
</tr>
<tr>
<td>5</td>
<td>Detroit, MI</td>
<td>1,849,568</td>
<td>713,777</td>
<td>-61.4%</td>
</tr>
<tr>
<td>6</td>
<td>Baltimore, MD</td>
<td>949,708</td>
<td>620,961</td>
<td>-34.6%</td>
</tr>
<tr>
<td>7</td>
<td>Cleveland, OH</td>
<td>914,808</td>
<td>396,815</td>
<td>-56.6%</td>
</tr>
<tr>
<td>8</td>
<td>St Louis, MO</td>
<td>856,796</td>
<td>319,294</td>
<td>-62.7%</td>
</tr>
<tr>
<td>9</td>
<td>Washington, DC</td>
<td>802,178</td>
<td>601,723</td>
<td>-25.0%</td>
</tr>
<tr>
<td>12</td>
<td>Pittsburgh, PA</td>
<td>676,806</td>
<td>305,704</td>
<td>-54.8%</td>
</tr>
<tr>
<td>15</td>
<td>Buffalo, NY</td>
<td>580,132</td>
<td>261,310</td>
<td>-55.0%</td>
</tr>
<tr>
<td>16</td>
<td>New Orleans, LA</td>
<td>570,445</td>
<td>343,829</td>
<td>-39.7%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau

Scholars have noted a definite pattern among shrinking cities in the United States. Characterized by the post-industrial decline of major urban centers that leads to a “hollowing

---

1 It is important to make the distinction that the term shrinking city to date has been framed by the loss of people, not land; however, some cities such as Youngstown, OH and Flint, MI have been discussing the reduction of the physical size of their cities.
out” of city centers, shrinking accelerated in the years after World War II as city residents migrated to outlying suburban areas (Hollander, et al. 2009, Pallagst 2008). This pattern of development known as urban sprawl created a situation in which suburban areas continued to grow, but at the expense of growth in cities.

One of the few studies to analyze the history of urban population loss, Beauregard’s (2009) research highlights the specific aspects of shrinkage. The author notes that urban areas in the U.S. have experienced significant population growth from 1820 through 1920. This was quickly followed by a process of significant population loss that began in the 1950s and continues through the present day. Furthermore, incidences of urban population loss are concentrated in the Rust Belt, a region which Beauregard (2009) characterizes as stretching from Maine to Maryland, Ohio to Nebraska, and Minnesota to Kansas. Finally, five key factors contributing to urban population loss include: (i) mass suburbanization; (ii) disinvestment in cities; (iii) racial conflict; (iv) a reputation for high levels of crime and poor public services; and (v) the inability to annex growing areas on a city’s periphery.

Shrinking in the Rust Belt: Cleveland, Ohio

Based on the aforementioned factors contributing the heavy concentration of shrinking cities in the Rust Belt is not surprising. These cities owed their incredible growth and expansion in the early decades of the 20th century to heavy industry, but it also made their decline in the decades after World War II all the more inevitable. One such city that has been hardest hit by this decline is the city of Cleveland, Ohio. Located on the shores of Lake Erie in Northeastern Ohio, Cleveland has experienced a staggering 57% drop from a peak population of 914,808 in 1950:
Table 2: Population Change of Cleveland, Ohio, 1890-Present

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>% Change From Previous Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>261,353</td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>381,768</td>
<td>46%</td>
</tr>
<tr>
<td>1910</td>
<td>560,663</td>
<td>47%</td>
</tr>
<tr>
<td>1920</td>
<td>796,841</td>
<td>42%</td>
</tr>
<tr>
<td>1930</td>
<td>900,429</td>
<td>13%</td>
</tr>
<tr>
<td>1940</td>
<td>878,336</td>
<td>-2%</td>
</tr>
<tr>
<td>1950</td>
<td>914,808</td>
<td>4%</td>
</tr>
<tr>
<td>1960</td>
<td>876,050</td>
<td>-4%</td>
</tr>
<tr>
<td>1970</td>
<td>750,903</td>
<td>-14%</td>
</tr>
<tr>
<td>1980</td>
<td>573,822</td>
<td>-24%</td>
</tr>
<tr>
<td>1990</td>
<td>505,616</td>
<td>-12%</td>
</tr>
<tr>
<td>2000</td>
<td>478,403</td>
<td>-5%</td>
</tr>
<tr>
<td>2010</td>
<td>396,815</td>
<td>-17%</td>
</tr>
<tr>
<td><strong>Change 1950-2010:</strong></td>
<td><strong>-57%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Like other Rust Belt cities, Cleveland’s exponential growth in the late 19th and early 20th centuries was driven by an economic boom that peaked in the 1920s. Between 1900 and 1920, the city’s population more than doubled, and by 1930 Cleveland was the sixth largest city in the country and Cuyahoga County was the third largest county in the country, trailing only metropolitan New York and Chicago. During this period Cleveland’s economic prosperity was anchored by the production and manufacturing of iron and steel, as well as automobiles and automotive parts, putting it only second only to Detroit in auto production for many decades. By the end of the 1920s, Cleveland’s nearly 400,000 workers were employed largely by the manufacturing and mechanical industries (41%) (Miller and Wheeler 1996).

But almost as quickly as Cleveland grew, the city began a decades-long process of shedding residents and jobs by the tens of thousands. With the onset of the Great Depression in 1929, one-third of Cleveland’s workers were unemployed by January 1931, and census figures were already showing a “decaying at the core” as the suburbs gained in population while the city center was losing residents. With the annexation of two nearby villages, West Park Village and
Miles Heights, Cleveland was geographically hemmed in at 76 square miles by 1932. By 1940 the percentage of those in the Cleveland metropolitan area who resided in the suburbs had doubled and the census from that year posted the city’s first decline in population. A report published by the Cleveland Chamber of Commerce in 1941 only highlighted this trend when it found that most people living in the city of Cleveland were anxious to move to the suburbs should economic circumstances permit (Miller and Wheeler 1996; Teaford 1994).

The city’s decline was halted (only briefly) by the expansion of Cleveland’s industrial and manufacturing activity to meet the demand for armaments and other wartime material during the 1940s. This brief renaissance in activity temporarily boosted the city’s population, allowing it to reach its all-time peak of 914,808 in 1950. Industrial workers flocked to the city for work and outward migration to the suburbs slowed as a result of wartime shortages of men and materials that discouraged new home construction in these areas (Miller and Wheeler 1996).

When the decline resumed, however, its scale was devastating and it accelerated through the 1980s, fundamentally changing the character of Cleveland. Adding insult to injury, it was also during this time that Cleveland earned the unfortunate moniker of “Mistake by the Lake,” when in 1969 the Cuyahoga River caught fire (Maag 2009). By the postwar era the central business district and neighborhoods were badly deteriorating, crime was worsening and thousands of Cleveland’s more well-to-do residents were fleeing to the suburbs. As a result of this process, entire neighborhoods in Cleveland emptied out, a phenomenon concentrated in African American neighborhoods with high poverty and crime rates (Miller and Wheeler 1996).

The most noticeable demographic changes during this period was the growing percentage of African American residents in the city of Cleveland, many of whom were impoverished. By 1980, 44% of the city’s population was African American and the average income for families in
Cleveland ($9,717) was almost $6,000 less than their suburban counterparts. Public policy did little to reverse the trend of abandonment in Cleveland. Between 1966 and 1974, the city spent over $4 million to demolish abandoned buildings, which allowed an average of three units per day to be razed (Miller and Wheeler 1996).

Between 1970 and 1980, Cleveland experienced its largest single-decade decline (24%) while struggling to make an economic transition from a city dominated by manufacturing to one where seven in ten workers were employed in the service sector. Although a remarkable building boom took place in the downtown area through the late 1990s, resulting in the addition of large, publicly subsidized projects like the Gateway Sports Complex and the Rock N’ Roll Hall of Fame Museum, these projects neither stimulated large scale job creation nor stemmed the flow of residents out of the city (Miller and Wheeler 1996). Today, Cleveland continues to struggle with an outflow of residents. According to the U.S. Census Bureau, Cleveland’s population now stands at 396,815, and expected to fall further. Additionally, Cleveland continues to have one of the highest poverty rates among larger cities in the U.S. with an estimated 35% of residents living in poverty and a median income of only $24,687.

Shrinking Cities: The Challenge of Vacant Land

The vast amounts of vacant and abandoned lots in many shrinking cities constitute a form of blight. In the Rust Belt an estimated 10% all city land is vacant (National Vacant Properties Campaign 2005). Not just an eyesore, these properties become sites for crime, illegal dumping, and degrade the general health and vitality of surrounding areas, deterring people and businesses from locating in neighborhoods that appear blighted. Such properties also present a significant cost for already cash-strapped municipal governments and local communities, both in terms of
upkeep and maintenance and the lost or reduced property tax revenues that are essential to maintain adequate city services for remaining residents (Schilling and Logan 2008).

A report by the National Vacant Properties Campaign documented the problems that vacant and abandoned properties pose for shrinking U.S. cities. In terms of lost or reduced tax revenues, it is estimated that the “failure of cities to collect even two to four percent of property taxes because of delinquencies and abandonment translates into $3 to $6 billion in lost revenues to local governments and schools districts annually” (National Vacant Properties Campaign 2005, 7). Additionally, vacant and abandoned properties lower surrounding property values. In terms of upkeep and maintenance costs, cities spend hundreds of thousands annually to demolish vacant structures and clean and maintain vacant lots. For example, the city of Detroit spends an estimated $800,000 each year just to clean vacant lots. The city of Philadelphia spends upwards of $1.8 million (National Vacant Properties Campaign 2005).

Rethinking Shrinking Cities: Vacant Land and Greening Strategies

Leaders in shrinking cities are beginning to realize that population loss must be accepted as a long-term reality that will require new and innovative strategies. Managing vacant land cannot be based on false hopes that traditional forms of growth and development are likely. One “right sizing” strategy that has started to gain traction is the transformation of vacant lots into green spaces that “creates community assets while aligning supply more closely with existing and foreseeable levels of demand” (Schilling and Logan 2008, 453).

One of the few studies to document the impact of greening vacant lots is Susan Watcher’s (2005) study of the New Kensington Development Corporation’s greening strategies in Philadelphia. This study shows that investing in such strategies makes financial and practical sense. Watcher’s research shows that surrounding housing values significantly improved as a
result of these efforts. The greening of vacant lots in the study included the clearing of trash and debris, planting of grass and trees, and use of lots for urban agriculture and horticultural projects. As a result of these vacant lot improvement strategies, surrounding housing values increased by as much as 30%, translating to a $12 million gain in property values in the New Kensington area.

Shrinking Cities: The Challenge of Vacant Land in Cleveland, Ohio

In November 2007, Cleveland’s Department of Community Development estimated that there were 7,014 vacant properties (including primarily residential structures) in the city based on reporting from 27 area community development corporations (CDCs), but this surely underestimates the total. The city land bank database at the time recorded 5,367 properties, providing an estimate of the number of vacant and abandoned lots (the land bank accepts only lots without structures) (Community Research Partners 2008).

These properties, of course, place a significant financial burden on the government. By one estimate, it cost the city $1.2 million in one year to demolish 153 structures; $3.3 million for grass cutting and trash removal; and approximately $1 million in costs resulting from fires in vacant and abandoned buildings. In addition, the city suffered approximately $30.7 million in lost tax revenues due to the delinquency of abandoned properties (Community Research Partners 2008).

With urban agriculture shrinking cities have the ability to pioneer new forms of urban development and create opportunities to reinvent and revitalize themselves. Expanding the scale of urban agriculture has the potential to become an important strategy for repurposing abandoned and vacant land. However it requires the support and partnership of policymakers, planners, and local communities to develop appropriate policy and planning strategies.
The city of Cleveland is actively pursuing urban agriculture as a major component of the city’s overall plan for vacant land management strategies. In 2007 Cleveland became the first major U.S. city to create a zoning code designation specifically protecting urban agriculture. Since that time Cleveland has continued to expand its support of urban agriculture and the city is now home to some of the largest contiguous urban farms in the country. As such, Cleveland is becoming a strong model for the ways in which a city can support urban agriculture as part of more comprehensive municipal efforts to transform urban life.
Chapter 2

Literature Review

This chapter provides an overview of the literature on urban agriculture with a focus on its practice in modern U.S. history, including a discussion of the benefits of urban food production as well as key constraints on its practice.

**Defining Urban Agriculture**

Urban agriculture is a multi-dimensional system that engages urban residents in a wide range of activities related to the growing, processing, and distribution of food within cities. While the multi-dimensional nature of the practice makes it a somewhat difficult concept to define, there are several key elements that help create a framework for understanding the practice of urban food production (Smit, Nasr, and Ratta 2001; Hodgson, Caton Campbell, Bailkey 2011):

1. **Types** of urban agriculture activities – vegetable and fruit production to animal husbandry practices
2. **Location** of urban agriculture activities – public and private spaces, including residential, commercial, or industrial areas
3. **Scale** of urban agriculture activities - large or small plots of land whether contiguous or small non-contiguous parcels
4. **Purpose** of urban agriculture activities – for personal consumption, educational purposes, neighborhood revitalization, or for commercial sale
A History of Urban Agriculture in the United States

There has been a near continuous presence of urban agriculture in U.S. cities, but in modern times the practice has become more recreational and less a necessity as cities industrialized and agriculture has become a largely rural endeavor far removed from urban centers. Since the beginning of the 20th century, urban agriculture can be traced through a series of distinct “movements.” Though largely episodic in nature, these movements have generally proliferated during periods of national crisis and were supported in large part by local and federal government.

The first of these movements was driven by the economic depression of the late 1890s when Mayor Hazen Pingree of Detroit, Michigan, proposed gardening as an innovative form of poor relief for unemployed laborers and their families. Known in the press as “Pingree’s potato patches” or “Potato patch farms,” Pingree acquired municipally owned and privately donated vacant land for use in the program. The “Detroit experiment” reportedly reduced Detroit’s poor “roll” by 60% during its operation and became the model for other cities to form their own vacant lot gardening programs. In cities across the country these programs created their own successes and produced better returns on investment than other forms of charity often multiplying the value of every dollar invested. However, as economic conditions improved vacant-lot gardening programs were largely abandoned and owners reclaimed the land they had donated (Bassett 1981; Lawson 2005).

Such a phenomenon would continue over the next half century. Difficult times during the Great Depression encouraged a resurgence in gardening activity, but support and participation dropped off as the economy improved. Nevertheless, U.S. cities experienced the greatest levels of participation and support for gardening during wartime. Severe food shortages
During World War I led to the formation of the National War Garden Commission in 1917. A year later, the Commission reported that gardening efforts produced crops worth an estimated $525 million in over 5 million gardens across the country. Subsequently, at the peak of production during World War II, the National Victory Garden Program helped to create over 20 million Victory Gardens that yielded an astonishing 40 percent of the fresh vegetables consumed in the United States (Bassett 1981).

With few exceptions, the tradition of urban growing was largely abandoned after World War II (Hynes and Howe 2004). The modern era of urban gardening began in the late 1960s and early 1970s when urban decline generated renewed interest in urban green spaces and local residents transformed vacant lots into community gardens (Saldivar-Tanaka and Krasny 2004). In 1976 the federal government created the Urban Garden Program as a response to these problems. Administered by the Department of Agriculture’s Cooperative Extension Service, the program received $1.5 million in initial funding to establish offices and set up garden projects in six cities. Two years later, funding increased to $3 million and the program expanded to an additional ten cities. By 1980 the program had served nearly 200,000 urban residents, and by 1982 the program had produced an estimated $17 million worth of food. Despite its successes, the program eventually lost political support and was reduced to a line item in the Department of Agriculture’s budget in 1992. It was eliminated the following year (Lawson 2005).

The current resurgence in urban agriculture, as in the past, has in part been triggered by the economic crisis. Its popularity, however, has come to be associated with multiple “crises” as “urban gardeners are waging lots of different wars – against global warming, foreign oil dependence, processed food, obesity, and neighborhood blight” (McLaughlin 2008). Once again,
cities and their residents are evaluating the role of urban agriculture within the context of broader social, economic, and environmental challenges facing cities today.

**Benefits of Urban Agriculture**

As previously discussed, urban residents engage in the practice of urban agriculture for many reasons beyond the simple provision of food and there are multiple benefits of urban agriculture for improving the quality of urban life and the urban environment.

**Health Benefits of Urban Agriculture**

Urban agriculture provides a number of benefits for personal health and participation in gardening activities has been associated with improved nutrition, increased fruit and vegetable intake, and increased physical activity (Armstrong 2000; Alaimo et al. 2008; Wakefield et al. 2007; Twiss, et al. 2003). Urban agriculture can also help increase food access, especially in low-income areas where affordable and nutritious food options are often limited and difficult to find. In addition, hunger and food insecurity – a condition arising from a lack of enough income and other resources for food – have become a reality that growing number of Americans are facing, and for which urban agriculture may also help to alleviate (Brown and Jameton 2000).

In 2009 the USDA reported that approximately 14.7% of all households in the United States were food insecure in the previous year, the highest level since the collection of national food security data began in 1995 (USDA 2009). This has meant that more people are also choosing to grow food at home to supplement their diets and cut food costs (Sutter 2009). A recent survey by the National Gardening Association of households that participate in food gardening found that a significant number of survey participants cited saving money on food bills (54%) and the economic downturn (34%) as factors influencing their participation (National Gardening Association 2009).
As a source of nutritious food, urban agriculture has a role to play in combating the growing incidence of obesity in the United States. In 1990, no state in the country reported a prevalence of obesity greater than 15 percent, but by 2007, only one state (Colorado) had a prevalence of obesity less than 20 percent. The CDC has labeled American society “obesogenic,” a condition resulting from environmental factors that promote increased food intake, nonhealthful foods, and physical inactivity (Nordahl 2009).

Social and Community Benefits of Urban Agriculture

Gardens not only provide places to grow food, but act as important spaces for fostering community and social cohesion. Participation in a community garden has been associated with increased self-esteem, greater feelings of personal safety and security, and allows participants to connect with nearby residents across racial and generational lines (Schukoske 2000; Waliczek, Mattson and Zajicek 1996). Community gardens can also lead to further neighborhood organizing for other community issues and activities as neighbors become better acquainted with one another, and research has indicated that green spaces and community gardening sites in neighborhoods can act a deterrent to crime (Armstrong, 2000; Ferris, Norman, and Sempik 2001, Kuo and William 2001).

Economic Benefits of Urban Agriculture

Voicu and Been (2009) found that community gardens provided a quantifiable impact on property values in poorer neighborhoods in the Bronx, New York. The study found the presence of a community garden was associated with an increase of over $3,000 for properties within the immediate vicinity of a community garden a year after opening and rising to over $6,500 within 5 years of opening.
For-profit urban agriculture ventures provide an economic benefit to a local community by creating opportunities for a variety of entrepreneurial food ventures by urban residents (Kaufman and Bailkey 2000). As part of the growing local food movement, more consumers are desiring to purchase food produced closer to where they live and urban food growers have the ability to fill this need directly. Local food production and distribution can strengthen local economies by keeping a greater percentage of money circulating within a local community, which can help generate more jobs and income (Halweil 2004).

Environmental Benefits of Urban Agriculture

Urban agriculture is also part of the larger overall movement of sustainability within cities and can contribute to a cleaner urban environment. At the local level, plants and trees in cities act as natural filters for airborne environmental pollutants and help to increase humidity and lower temperatures thereby creating a more comfortable environment for urban residents. Urban agriculture can also help improve water management in cities. A large percentage of cities are covered by hard surfaces, increasing the amount of rainwater and runoff that goes directly into the sewer systems. However, urban areas with permeable land surfaces, including urban agriculture sites, allow water to drain through the soil thereby reducing the need for more stormwater sewers and drains (Deelstra and Girardet 2000).

Constraints on Urban Agriculture

Even with the many recognized benefits of urban agriculture as described in the previous section, there a number of key constraints on its successful practice.
Lack of Resources to Support Urban Agriculture

The resources necessary to start and maintain successful urban agriculture projects can often be a major challenge. Urban agricultural projects require a wide range of potentially cost-prohibitive inputs depending on the size of a project including soil, seeds and plants, water, tools and equipment, and rent and insurance. This presents a particular challenge to individuals and organizations with limited assets to invest. At the same time, urban agriculture requires a fairly significant level of interest, involvement, and agricultural knowledge and skills among those participating in urban agriculture projects in order to bring about successful yields (Brown and Carter 2003; Okvat and Zautra 2011).

Lack of Land Access and Suitability for Urban Agriculture

By far the greatest constrain on urban agriculture is related to the issues of land access and land tenure. Land is the primary requirement for agriculture, but many of the individuals and organizations involved in urban agriculture do not own the land they use to grow food. Without title or formal lease agreements, urban agriculture projects risk losing their investment when the land is taken for other uses (Brown and Carter 2003). Additionally, urban agriculture is generally viewed as secondary to other land uses in cities like commercial and residential development which provide a greater profit for the landowner (Lovell 2010). In 1996 the American Community Gardening Association published the results of a nationwide survey of community gardens in the United States highlighting the pervasiveness of this issue: out of 6020 gardens recorded in 38 respondent cities, only 5.3% (319) of the gardens were in ownership or a land trust that could guarantee their permanency (American Community Gardening Association 1998).
And even when land may be available for the purposes of urban agriculture, that land may not be suitable for growing food due to the poor soil quality and the existence of various environmental contaminants. One contaminant of particular concern in cities is lead, often found in soils of older city neighborhoods and former industrial areas due to the previous use of lead-based paints and gasolines. Although lead-based paints and gasoline have long been banned from use, lead moves little in the soil, thereby creating a persistent concern for contamination (Nordahl 2009).

Lack of Support from Local Government

The final key constraint on the practice of urban agriculture is the level of formal support from local government. Nordahl (2009) notes that any urban agriculture endeavor will be difficult to implement and sustain if the largest land-owner in a city is indifferent to community interests in food growing. The lack of local government support is most evident when it comes to urban land use and zoning governing urban agriculture.

Municipal policymakers and planners have an important role to play in supporting and enabling urban agriculture, but as history has shown their support has been intermittent and sometimes nonexistent. With the rise of land use planning at the start of the 20th century, city zoning codes began to remove farming as a recognized land use as residential developments took over most former farmland inside cities and planners no longer considered agriculture as a part of city life (Smit, Nasr, Ratta 2001; Hodgson, Caton Campbell, and Bailkey 2011). Additionally, Lawson (2004) notes that even with the acknowledgement of community gardens as important community assets, little attention has been paid to their long-term or permanent preservation through city planning.
However, this view is beginning to change as urban agriculture has gained greater support from local governments due in part to the increasing interest in food issues and food planning within the urban planning community in the last ten years (Pothukuchi 2009). And as the practice of urban agriculture is expected to grow over the next decade, it will increasingly have “implications for urban planning as regulated by local and regional governments and planning agencies” (Hodgson, Caton Campbell, and Bailkey 2011, 2). In short, local governments will increasingly be required to formulate policies that both protect and encourage urban agriculture (Morales and Mukherji 2010).
Chapter 3

Methodology

The following chapter utilizes a case study approach to answer the following key research question: How is urban agriculture becoming a part of the policy and planning agenda for shrinking cities as they look to the future? The process of choosing a city for the research revealed that while a number of shrinking cities have a significant amount of urban agriculture activity, few of these same cities have also made significant progress in addressing urban agriculture from a policy and/or planning perspective. As such Cleveland, Ohio was chosen as the best city for an in-depth analysis of the history and evolution of the urban agriculture policy and planning process.

The case study was developed using a combination of available data and structured interviews with urban agriculture stakeholders falling into three broad categories: urban agriculture practitioners, urban agriculture advocates, and municipal officials. Data on municipal policies and planning for urban agriculture in Cleveland were collected using available data sources, including the city’s municipal code, websites, research studies and reports, press releases, and news articles.

Telephone and in-person interviews were also conducted with 18 individuals having direct knowledge of urban agriculture and/or involvement in the policy and planning process (see Appendix 2). Interviews ranged between thirty minutes to one hour. Five of the interviews were conducted face-to-face during a trip to the city of Cleveland during which time the researcher had the opportunity to visit two urban agriculture sites. Interviews enriched the available data by providing insight into what is happening “on the ground” in Cleveland as well as the key factors driving the development of policy and planning for urban agriculture.
Although there was a great deal of overlap in the areas of expertise and involvement in the local urban agriculture movement within Cleveland, interview respondents largely fell into four broad categories: i) food policy coalition respondents; ii) local government respondents; iii) nonprofit respondents; iv) market gardening respondents.

Food policy coalition respondents were associated with a variety of nonprofit and government organizations related to urban agriculture activities. These respondents had the greatest level of direct knowledge and involvement with the development of urban agriculture policy in Cleveland from the grassroots perspective. Local government respondents came from both municipal and county government that had the greatest amount of direct interaction with urban agriculture in Cleveland. These respondents had the greatest level of direct knowledge and involvement with the development of urban agriculture policy from government perspective.

Nonprofit respondents were associated with nonprofit organizations having a less direct but vested interest and involvement in Cleveland’s growing urban agriculture movement. These respondents gave important insight into the growing relationship between urban agriculture and the range of broader social, economic, and environmental issues facing Cleveland. Market gardening respondents were either individuals or organizations directly involved in commercial urban agriculture ventures within the city of Cleveland. These respondents gave important and unique insight into both the challenges and prospects of practicing urban agriculture with the city’s current policy framework.

The interview guide and questions (see Appendix 1) were aimed at understanding three key issues: i) the overall practice of urban agriculture in Cleveland; ii) the policy and planning perspectives of urban agriculture practitioners; and iii) the policy and planning perspectives of municipal officials and departments. In particular, interview questions focused on understanding
the overall history of the practice of urban agriculture in Cleveland and its evolution into a major policy and planning focus for both urban agriculture practitioners and municipal government.

In the final phase of developing the case study, the information and data collected was used to focus on answering the following key questions: i) what is the institutional environment existing in Cleveland, Ohio to support the development of urban agriculture policy and planning?; ii) what types of policies and planning mechanisms are currently being utilized by the city of Cleveland to support urban agriculture?; iii) who are the key actors that have been involved in urban agriculture policy and planning in the city of Cleveland?; iv) what has been the role of these various actors in influencing the course of urban agriculture policy and planning within the city of Cleveland?; v) what has been the interaction between non-governmental and governmental actors in the development of urban agriculture policy and planning within the city of Cleveland?; vi) how is the urban agriculture policy and planning process in the city of Cleveland affecting and interfacing with the practice of urban agriculture within the city?; and vii) what lessons can be drawn from the city of Cleveland’s experience in the development of urban agriculture policy and planning?
Chapter 4

Case Study of Urban Agriculture Policy and Planning in Cleveland, Ohio

The commentary in this chapter is divided into three sections, each of which addresses the areas in which Cleveland’s municipal government is supporting the growing urban agriculture movement in Cleveland: i) expanding the practice of urban agriculture through policy change; ii) incorporating urban agriculture into long-term planning and vacant land management; and iii) supporting urban agriculture as an economic opportunity.

As each section will show, the urban agriculture movement in Cleveland is engaging a broad spectrum of stakeholders from the grassroots to city hall as urban food production is becoming an important tool within more comprehensive and strategic efforts to help the city transition to a future that is based on more sustainable patterns of development. The goals of these ongoing efforts are to improve the quality of life and the local environment, create a healthier citizenry, and make Cleveland a more attractive place for residents now and in the future.

Cleveland’s support for urban agriculture has been a collaborative endeavor aided by strong leadership both within and outside of government. Municipal government has been open to partnering with local organizations and citizens who are working to scale up urban agriculture not only within the city but increasingly throughout the Greater Cleveland area. As urban agriculture is increasingly becoming a key component of broader municipal efforts to revitalize Cleveland, urban food growing is positioned to have a profound and lasting effect on the city’s social, economic, and environmental fabric for years to come.
“By beautifying vacant lots and yards in nearly every section of the city, it has greatly increased realty values beside adding to the beauty of a city. But what is more important, it has made the health of the city better. It has got the people out of doors to cultivate flowers and vegetable gardens who before never ventured into a garden. They feel and live better.”
– Cleveland Plain Dealer Article on the work of the Home Gardening Association, 1907

**Expanding the Practice of Urban Agriculture through Policy Change**

Cleveland has a long and rich history of what one interview respondent described as “neighborhood based agriculture” (nonprofit respondent, interview 12). In 1904 the Cleveland Public School system established an innovative and highly successful district-wide horticulture program that became a model for other school gardening programs across the country and created a “culture around growing food” in Cleveland (Lawson 2005; nonprofit respondent, interview 12). Although the program was discontinued in 1978 due to budget cuts, its ending coincided with the start of a municipal community gardening program that helped form the foundations for urban agriculture in the city today.

Since the late 1970s the city has directly supported community gardening in Cleveland through its citywide gardening program, Summer Sprout. Part of the Department of Community Development, Summer Sprout is managed by the Ohio State University Extension of Cuyahoga County (OSUE) and funded by a portion of the city’s Community Development Block Grant (CDBG) dollars. Gardens that participate in the program receive technical assistance and access to educational workshops through OSUE, as well as materials and services such as site preparation, reduced-rate hydrant permits, soil, seeds, and starter plants. The city also provides land on which many of the gardens are sited from vacant parcels held by the Cleveland Land Bank program. The program produces a high return on investment for the city. In 2009, $100,000 of CDBG funds allocated to the Summer Sprout program helped over 3,500 gardeners in 148 gardens grow an estimated $2-3 million worth of produce according to the Cleveland-Cuyahoga Food Policy Coalition.
This map shows the location of community gardens participating in the Summer Sprout program in 2011. Community gardens are located in all parts of the city, but with a concentration of community gardens on the city’s east side. (Source: OSUE; Map courtesy of PolicyMap)
Urban agriculture in Cleveland has also drawn strength from the growing movement to enhance and develop the local food system. A major catalyst for policy change has been the Cleveland-Cuyahoga Food Policy Coalition (Coalition). Formed in 2007, the Coalition is comprised of individuals, nonprofits, and government officials working to create a more just, equitable, healthy and sustainable local food system in Greater Cleveland. For the Coalition’s land use working group, a key area of focus over the past several years has been a push for an overhaul of the municipal zoning code to facilitate the expansion of urban agriculture activities as “zoning is the mechanism that determines the highest use of land” (local government respondent, interview 9).

In particular, the drive for policy change initially grew out of a desire among urban agriculture advocates in Cleveland to find an option for long-term land tenure and permanent preservation of established gardens. Although the city has long encouraged community gardening, the gardens themselves – many of which are located on city-owned land bank parcels – have generally been viewed by the city merely as an interim land use. The position of the city’s Community Development department for many years had been that “if someone wants this land [occupied by a garden] to build on, we need to let them” (food policy coalition respondent, interview 11). This mindset meant that even long-standing gardens “had very little security” on land bank land while also creating a potential disincentive for community members to devote the time and money to building a garden “if you could get kicked out tomorrow” (food policy coalition respondents, interview 3 and 11).

As such, a key challenge for policy change in Cleveland has been, as one respondent noted, “to get people to think about gardening as a highest and best use of land,” in particular key decisions makers within local government (food policy coalition respondent, interview 10). In
this respect, the urban agriculture movement in Cleveland was fortunate to find a champion in city councilman Joe Cimperman who became involved early on in the policy change process and “helped to shepherd” all urban agriculture legislation through Cleveland City Council (food policy coalition respondent, interview 3). The support of the City Planning Commission was also cited as “one of the critical changes in thinking” that was instrumental to allowing urban agriculture policy change to progress (food policy coalition respondent, interview 11).

To date the policy efforts of the Coalition in partnership with the city of Cleveland have resulted in three major pieces of urban agriculture legislation: i) the Urban Garden District; ii) “Chicken and Bee” Zoning; and iii) Agriculture in Residential Districts².

**Urban Garden District (2007)**

The Urban Garden District (UGD) ordinance created a new zoning classification which gives the city the ability to preserve land for urban agriculture uses. When zoned as a UGD, gardening is the only permitted use of that parcel. Recognizing the important role of urban gardens and the many benefits they provide to local communities, the purpose of the Urban Garden District is,

> “to ensure that urban garden areas are appropriately located and protected to meet the needs for local food production, community health, community education, garden-related job training, environmental enhancement, preservation of green space, and community enjoyment on sites for which urban gardens represent the highest and best use for the community” (Cleveland Codified Ordinances 2010a).

The UGD ordinance also defines urban agriculture in Cleveland as two distinct types of activity: community gardens and market gardens. Whereas community gardens are defined as “land managed and maintained by a group of individuals to grow and harvest...for personal or group use, consumption or donation,” a market garden is defined as “land managed and maintained by

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² See Appendix 3 for a complete text of the ordinances.
an individual or group of individuals to grow and harvest...for profit” (Cleveland Codified Ordinances 2010a). Since the legislation’s passage approximately 10 to 12 urban agriculture sites comprising over 30 parcels of city land have been zoned as UGDs (food policy coalition respondent, interview 3).

“Chicken and Bee” Zoning (2009)

Colloquially referred to as “chicken and bee” zoning, this ordinance applies citywide to all zoning districts and allows Cleveland residents to raise small livestock, including chickens, ducks, rabbits, and rabbits, as well as honeybees (Cleveland Codified Ordinances 2010b). The number and type of animals allowed is determined by lot size and all residents are first required to obtain a license from the City’s Public Health Department, as well as permits from the Department of Building and Housing for the construction of any fencing or structures in which the animals or bees are kept (Cleveland Codified Ordinances 2010c).

The original ordinance passed by City Council also included a “sunset provision” whereby the City Council would have to re-approve the ordinance on an annual basis. In the first year of the legislation, fourteen applications for permits or licenses were filed with the city, primarily for backyard chicken coops, and the city received no complaints related the keeping of chickens or bees (Flint, 2010). In 2011 the sunset provision was removed and the ordinance is now a permanent part of the municipal code.

Agriculture in Residential Districts (2010)

The zoning code was further amended by this ordinance to formally allow agricultural activities as a primary use on all vacant, residentially zoned lots. In addition the ordinance further supports market gardens by allowing for the sale of produce from on-site farms stands by obtaining a conditional use permit from the Board of Zoning Appeals “after public notice and
public hearing that the farm stand and sales will meet a community need without adversely affecting the neighborhood” (Cleveland Codified Ordinances 2010d). This provision was required in the ordinance as several city council members were concerned with on-site sales creating a disturbance or nuisance to local neighborhoods (food policy coalition respondent, interview 3).

Urban Agriculture Overlay District (Pending Adoption by City Council)

The Urban Agriculture Overlay (UAO) District ordinance was originally proposed in 2010 but is still pending adoption by the Cleveland City Council. As part of the city’s zoning code the UAO District would,

“be mapped…as an overlay district in areas where it has been determined that urban agriculture is an appropriate use of the land. The minimum size of a UAO District, composed of a single parcel or multiple contiguous parcels, shall be 10,000 square feet” (Cleveland City Council 2010).

The UAO ordinance would further expand urban agriculture in Cleveland by adding the definition of an urban farm as “a parcel of land or multiple contiguous parcels of land managed or maintained by an individual or group of individuals to grow and harvest food crops and/or non-food [crops]…to be sold for profit” (Cleveland City Council 2010). Prior to designation of any land as a UAO district will require the approval of both the City Planning Commission and the City Council.
Incorporating Urban Agriculture into Long-Term Planning

and Vacant Land Management

Cleveland’s declining population is now estimated to be at 396,815 – a 17% decline since 2000 – has made the management of vacant land a major city function (U.S. Census Bureau 2011). Only Detroit and New Orleans experienced greater population losses over this period (Wisley and Spangler 2011). While the city’s population decline is part of a much longer-term trend, the magnitude of the last decade’s population loss has been alarming since it has accelerated since the previous decade. During the 1980s and 1990s, the pace of Cleveland’s population loss slowed from a high of 23.6% during the 1970s, dropping to 11.9% in the 1980s, and again to a loss of just 5.4% during the 1990s. It was during this time that Cleveland came to be known as the “The Comeback City,” the result of a boom in downtown development that saw the construction of multi-million dollar public projects like the Rock N’ Roll Hall of Fame and the Gateway Sports Complex (Miller and Wheeler 1997).

Unfortunately, Cleveland was one of the cities in the U.S. hit hardest and earliest by the foreclosure crisis in the last decade. By 2007 the city had one of the highest foreclosure rates in the country with more than 7,000 foreclosure filings that year (Keating 2009; Kotlowitz 2009). As a result, the city has chosen to focus most of its resources on razing foreclosed and abandoned properties. A significant portion of the funding to do this has come from the U.S. Department of Housing and Urban Development’ Neighborhood Stabilization Program (NSP), a federal program aimed at stabilizing communities suffering from foreclosure and abandonment.

While NSP funds can be used to rehabilitate and redevelop properties, most cities are using the funds to raze properties. In three separate rounds of NSP funding, Cleveland has received over $50 million and has budgeted nearly 40% of those funds for demolitions (Gillispie
Since 2006, the city has demolished over 5,000 condemned structures (City of Cleveland 2011). Today approximately one in 14 residential parcels in Cleveland are vacant and the city is demolishing approximately 1,000 properties annually, creating hundreds of additional acres of vacant land in the process (Kroll 2007; Smith 2011).

While the city still hopes for population growth in the future, there is nonetheless a realization that there is a serious need to find alternative land uses for the more than 20,000 vacant lots in Cleveland that can help “reduce blighting in areas with weaker development” (local government respondent, interview 17). Within city government there is an understanding that the there is more vacant land “than [the city] can use with respect to development” and the city is open to “getting more creative with vacant land use” (local government respondent, interview 1).

As such, the city is incorporating urban agriculture into planning and vacant land management efforts both in the near and long term. As one respondent described, urban agriculture is part of efforts by city planners to find solutions for making “communities attractive to people, that are healthy and have less of a potential issue with all of the stressors that folks would experience with vacant land” (local government respondent, interview 13). In particular, urban agriculture is supported as a key alternative land use through two major municipal planning initiatives in Cleveland: i) Connecting Cleveland 2020 Citywide Plan and ii) the ReImagining a More Sustainable Cleveland initiative.

Connecting Cleveland 2020 Citywide Plan

In 2007 Cleveland adopted a new comprehensive plan, the Connecting Cleveland 2020 Citywide Plan (Connecting Cleveland). The first comprehensive plan to be approved in nearly two decades, Connecting Cleveland acknowledges the challenges inherent in Cleveland’s
population loss but envisions a future in which the city will become a “city of choice” not only for the most privileged citizens “but also for those who have been denied access to many of the pathways that can lead to success and fulfillment in life” (Cleveland Planning Commission 2007a, 3). The plan moves from an emphasis on physical planning to a focus on quality of life issues within each of Cleveland’s neighborhoods. As such, the ultimate goal of the plan is to bring together “‘place-based’ strategies addressing land use and physical development [and] ‘people-based’ strategies that address people’s needs for connections to education, jobs, services, recreation and the arts, as well as the need for ‘connectedness’ to neighbors and to a supportive community” (Cleveland Planning Commission 2007a, 3; Hirt 2005).

In the Plan’s narrative urban agriculture is highlighted as one such tool to foster a greater quality of life. Noting the passage of the Urban Garden District ordinance and the city’s history of supporting community gardening “to help people grow nutritious food, develop important skills, and build stronger communities and healthier environments,” Connecting Cleveland calls for the city to begin setting aside land for both temporary and permanent community gardens in every neighborhood in Cleveland (Cleveland Planning Commission 2007b). The Plan calls for both an inventory of existing gardens that will be preserved permanently as well as working with neighborhood groups to establish gardens in parts of the city underserved by community gardening programs (Cleveland Planning Commission 2007b).

Urban agriculture is also addressed in the Plan as a way to provide residents more opportunities to access fresh fruits and vegetables closer to home through both community and market gardens (Cleveland Planning Commission 2007b). In furtherance of this particular goal, in February 2011 the Cleveland City Council with the support of Mayor Frank Jackson passed the Healthy Cleveland Resolution which includes the goal of ensuring the existence of a
community garden within walking distance of every Cleveland resident by the year 2020 (Cleveland City Council 2011).

**Re-Imagining a More Sustainable Cleveland**

The *Re-Imagining a More Sustainable Cleveland* (Re-Imagining) initiative complements the city’s long-term comprehensive plan by looking at more short to-near term strategies for managing the city’s growing inventory of vacant land. The initiative was led not by the city, but by the local nonprofit organization Neighborhood Progress, Inc. (NPI), a funding intermediary for Cleveland’s community development corporations. In collaboration with the City of Cleveland and Kent State University’s Urban Design Collaborative, in 2007 NPI convened a 30-member panel of individuals from a variety of Cleveland’s nonprofit organizations and government departments.

Over the course of a year, the panel worked to evaluate the city’s vacant land and explore non-traditional land use strategies with the goal of developing a “cleaner, healthier, more beautiful, and economically sound city” (Neighborhood Progress 2008, 1). The panel’s work was detailed in the study *Re-Imagining a More Sustainable Cleveland: Citywide Strategies for Reuse of Vacant Land*. The *Re-Imagining* study begins by acknowledging that Cleveland’s population loss is unlikely to be reversed in the near future and that the city’s ability to attract and retain residents will depend “on how the city adapts to population decline and changing land use patterns” (Neighborhood Progress 2008, 2).

While a challenge, Cleveland’s over 3,300 acres of vacant land presents the city with an opportunity to target future development in ways that will enhance the city’s physical, environmental, and social character. The study identified three broad types of vacant land reuse strategies: i) neighborhood stabilization and holding strategies for vacant properties in areas of
the city with the greatest potential for redevelopment in the near-term; ii) green infrastructure strategies to expand the city’s green and open space networks, manage stormwater, restore the city’s ecosystem, and remediate environmental toxins; and iii) productive landscapes strategies, including both agriculture and energy generation, with the goal of reusing vacant land to generate an economic return. To determine the best of these strategies for a particular vacant parcel, the study also developed a land use decision tree to guide the Cleveland Land Bank in its overall decision process.

Urban agriculture was highlighted by the study as a key productive landscape strategy whereby the city’s vacant land can be used to generate an economic return. Citing limited access to fresh produce in certain parts of the city as well as the potential for commercial agriculture on larger parcels of vacant land, the study also developed a list of criteria for choosing the best sites for community gardens and larger market garden sites.

The city played an active role in the study with “buy in from key government organizations” (nonprofit respondent, interview 2). Upon the release of the study in 2008, it was adopted unanimously by the Planning Commission and is intended to be used by the city as a framework for managing vacant land. In 2009 the study was implemented as 58 real world pilot projects chosen through a citywide competitive grant program open to all Cleveland citizens and funded in part by $500,000 of the city’s NSP funds. All of the projects are located on Cleveland Land Bank lots which have been given five year leases by the city. More than half of the pilot projects are urban agriculture projects and are diverse, including not only community and market gardens, but several orchard and vineyard projects as well.
Figure 2: Re-Imagining Cleveland Urban Agriculture Projects

This map shows the location of community gardens and market gardens chosen for the Re-Imagining a More Sustainable Cleveland initiative. Slightly more community gardens (depicted with green triangles) were chosen for the initiative than market gardens (depicted with green squares). (Source: Re-Imagining Cleveland; Map courtesy of PolicyMap)
The goal of these pilot projects is to test the strategies outlined by the *Re-Imagining* study with the goal of finding “the most successful and effective alternatives that can be scaled up in an effort to address the city’s growing inventory of vacant property” (*Re-Imagining* 2010, 1).

While the pilot projects focus on vacant land reuse on a small scale, in 2010 the initiative expanded to encompass all of Cuyahoga County. The latest incarnation of the initiative is working to develop signature projects to address areas of concentrated, large-scale vacancy with the goal of weaving together multiple social, economic, and environmental goals (*Re-Imagining* 2010). The Kingsbury Run Urban Agriculture Innovation Zone (Zone) will be the initiative’s first signature project.

The Zone encompasses 26 acres of contiguous vacant land in the Kinsman neighborhood of Cleveland, an area that has come to be known as the “Forgotten Triangle” due to the extent of vacancy in the neighborhood. Approximately 40% of the land in the Zone is held by the Cleveland Land Bank while the remaining 60% is either tax delinquent land or residential properties (market gardening respondent, interview 18). One of the first major projects currently underway in the Zone is an urban farm incubator pilot project being developed by the Ohio State University Extension of Cuyahoga County (OSUE). The pilot project will utilize 6 acres of city-owned land in the zone to develop a demonstration farm for educational purposes and lease the remaining land as quarter-acre plots to help individuals develop successful market gardening enterprises.

Additionally, OSUE is partnering with a local land conservancy organization, West Creek, who will hold title to the land and sublease plots to project participants. While the Cleveland Land Bank has agreed to lease the land to West Creek for a period of five years, it is
OSUE’s hope to eventually have the land held in perpetuity by West Creek or another interested organization for urban agriculture purposes (food policy coalition respondent, interview 3).

The Cleveland Land Bank

The Cleveland Land Bank (Land Bank) was originally established in the early 1970s as a mechanism by which the city could deal with a growing stock of tax-reverted property. Taking on vacant and foreclosed properties, the Land Bank maintains the lots until they can be redeveloped and returned to productive use by interested parties (Dewar 2006). Traditionally, the Land Bank has focused the sale of vacant properties to adjacent homeowners for property expansion or to parties interested in redevelopment and new uses, including housing and commercial development. Viewing the lots as having only nominal value, the Land Bank currently prices “nonbuildable” lots at $1 and “buildable” lots at $100.

Due to the foreclosure crisis, the number of properties accepted into the land bank has grown rapidly from just 130 accepted in 2006 to a high of 1,130 accepted in 2009. Today there are approximately 8,000 lots held in the Cleveland Land Bank (City of Cleveland 2010; local government respondent, interview 17). As such, the Land Bank has started to liberalize its policies regarding the use of land bank lots for urban agriculture projects. Beginning in 2010 the Land Bank has agreed to extend lease agreements for garden projects from one year to five years and is beginning to “advertise” its willingness to lease land bank lots for urban agriculture projects. As a growing number of Cleveland residents are showing an interest in utilizing land bank lots for urban agriculture, the Land Bank is working toward “designing programs around this interest and the support necessary to turn them into successful projects” (local government respondent, interview 17).
Figure 3: Cleveland Land Bank Lots

This map shows the location of parcels in the city’s land bank (shaded dark areas). Parcels in the city’s land bank are heavily concentrated on the city’s west side. (Source: Cleveland City Planning Commission)
Supporting Urban Agriculture as an Economic Opportunity

An important development within Cleveland’s growing urban agriculture movement has been the rise in the number of commercial agriculture enterprises throughout the city. Today Cleveland has over 20 such enterprises ranging from small market gardens on a few city lots to multi-acre urban farms. As one interview respondent who has been farming in the city for almost three years described, for-profit farming in Cleveland has largely been a “grassroots movement” with “bootstrapping of projects which are all driven by individuals” (market gardening respondent, interview 6).

An important part of growing the commercial urban agriculture industry in Cleveland has been OSUE and its Market Gardener Training program. Since 2006 OSUE has offered the Market Gardener Training program to individuals interested in starting a for-profit urban agriculture venture. Over 100 individuals – and a majority of the market gardener respondents for this research – have participated in the program with many going on to start their own market gardens. The program runs for 12 weeks each winter and is a comprehensive introduction to both the practical and business mechanics of running a successful market garden, including the completion of a business plan. OSUE is committed to the success of graduates in starting up their own market gardens, tracking the activities of program graduates and providing technical assistance and guidance to those who go on to start their own market garden.
This map shows the location of market gardens and urban farms in the city. The city’s first urban farm was founded in 2007; today there are over twenty for profit farming enterprises in the city, a number that continues to grow. (Source: Interview respondents; Map courtesy of PolicyMap)
As the number of for-profit farming ventures continues to grow, the city is beginning to recognize that urban agriculture may represent an important economic opportunity for local residents and currently supports urban agriculture as an economic opportunity in three key ways: i) Gardening for Greenbacks program; ii) Local and Sustainable Preference Code: iii) Sustainable Cleveland 2019.

Gardening for Greenbacks Program

The city directly supports urban agriculture as an economic opportunity for Cleveland residents through its Gardening for Greenbacks program. The program is a subset of the Neighborhood Retail Assistance program administered by the Economic Development Department which provides financial assistance to small businesses in Cleveland. In 2008 legislation was passed by the City Council that expanded the program to include market gardeners.

Gardening for Greenbacks provides grants of up to $3,000 to market gardeners to cover certain eligible costs associated with developing a market garden ranging from things as simple as tools and signage, to more complex and expensive purchases like irrigation systems and greenhouses. An important aspect of the program is that financial assistance is focused on supporting more established and serious market garden endeavors. Grantees must already have an established sales presence or successfully completed OSUE’s market gardener training program, and they must be able to guarantee that they have or will have a venue for the sale of their produce.

Since its inception the program has funded fewer slightly fewer than a dozen projects. The program’s grantees are entrepreneurial individuals, many of whom do not come from a backgrounds in business or agriculture, and many of the projects that have been funded through
the program are also located on city land bank lots. The goal of the Gardening for Greenbacks program is to help interested citizens “transition from gardening as a hobby to gardening as an entrepreneurial venture” and is another “proactive way of using available land” as part of the city’s land re-use strategy (local government respondent, interview 15). Gardening for Greenbacks also partners with OSUE to provide technical and other assistance to program participants, for example, working with the Cleveland Department of Water to establish more affordable water rates for market gardeners.

Local Producer, Local-Food Purchaser, and Sustainable Preference Code

In 2010 the City Council approved legislation that seeks to increase the amount of Cleveland’s local and green procurement. Another purpose of the Local Producer, Local-Food Purchaser, and Sustainable Preference Code is to leverage the purchasing power of city government to “strengthen the regional economy by procuring a greater percentage of their purchases from local businesses” (Cleveland Codified Ordinances 2010e).

The local food purchasing component of the ordinance was encouraged by the work of the Cleveland-Cuyahoga Food Policy Coalition and Councilman Joe Cimperman. Under the ordinance, companies are eligible for a 2 percent discount on food contracts with the city if the company produces food within a 15-county area or buys at least 20 percent of its food from regional producers. Although the city does not purchase a lot of food, the ordinance demonstrates the city’s commitment to strengthening the local economy and to serve “as an example to local companies” to purchase more goods and services locally (local government respondent, interview 16).
In his first State of the City address in 2006 Mayor Jackson declared that the city “has a great opportunity to reshape itself and to ensure that it has a great future. This means change – a change in the way we think and the way we do business.” This change is most evident in the mayor’s championing of sustainability as an important framework for guiding Cleveland’s future development and with the potential to strengthen the city’s economy. In 2009 the mayor launched Sustainable Cleveland 2019 (Sustainable Cleveland), a ten year initiative that will utilize the principles of sustainability with the goal of making them a driving force behind economic development, and ultimately to make Cleveland a “green city on a blue lake” by the 50th anniversary of the infamous Cuyahoga River fire.

A major component of Sustainable Cleveland are the series of annual summits that bring together diverse stakeholders to develop strategies and ideas for driving economic growth in Cleveland and the region through green and sustainable practices. The first summit held in 2009 drew nearly 700 attendants and generated interest in eight major areas of focus, including the local food economy. In particular, urban agriculture has been tapped by Sustainable Cleveland as a key area of focus and an opportunity to build a strong local food system that turns “vacant land from a liability to an opportunity to strengthen neighborhood resilience” and supports “resilient and competitive economic development…contribution to ecological and environmental health and social justice” (Sustainable Cleveland 2019 2010).

Although each area of focus will be an ongoing effort throughout the entire Sustainable Cleveland 2019 initiative, each year leading up to 2019 will be a “celebration year” for a particular sustainability topic. In the year leading up to each annual summit, Sustainable Cleveland organizers and participants will “ramp up activity for the focus issue” and celebrate
the city’s progress toward building a more sustainable local economy and region (local government respondent, interview 16). At the 2012 summit Sustainable Cleveland 2019 will celebrate the year of local food. The planning committee for the year of local food includes the Cleveland-Cuyahoga County Food Policy Coalition that is working to “come up with indicators and opportunities [for Clevelanders to] change a few things about the way they do business or run their organization related to food” (food policy coalition respondent, interview 3).

Although commercial urban agriculture in Cleveland is still in its infancy, market gardeners are encouraged by the city’s willingness to “create an environment to encourage more urban farming” and contribute to the success of market gardeners “in terms of land access and financial support” (market gardening respondents, interviews 4 and 6).
Chapter 5

Conclusion

As the preceding case study illustrated, the growing urban agriculture movement in Cleveland is putting urban food production in a strong position to make a significant and lasting impact on the city. This movement comes at an important time in Cleveland’s history when population decline is being recognized as a significant challenge for municipal government, but a challenge that the city is ready to face with innovative policy and planning strategies that seek to transform vacant land from a liability into an asset.

Key Findings

Urban agriculture presents a compelling possibility for Cleveland to create a more attractive and livable city now and in the future. Cleveland serves as an important model for how municipal policy can evolve to support urban agriculture in a way that meets the goals and objectives of a broad range of stakeholders. The following four key findings have been instrumental in the development of Cleveland’s forward-thinking municipal policies.

Key Finding #1: Local conditions unique to Cleveland have been central in supporting the growing urban agriculture movement, creating an essential foundation on which to build support for policy change. Cleveland has a long history of urban agriculture, including the support of local government. If the city did not have such a strong foundation in urban food production, it is unlikely that Cleveland would have been able to achieve the level of success in changing local policy that it has to date. Additionally, Cleveland’s large amount of vacant land and a ready mechanism for aiding people in gaining access to that land through Cleveland Land Bank have been necessary “raw ingredients” for the city’s growing urban agriculture movement.
Key Finding #2: The existence of strong and active leadership within the local urban agriculture movement that has collaborated with a wide range of stakeholders to make policy change happen. Urban agriculture in Cleveland has benefited from strong leadership and interest both within and outside of government. Urban agriculture is being looked at in a comprehensive way by more than just a single person, organization, or government department and there has been an effort to look at the issue of urban food production from multiple perspectives and to draw in a broad spectrum of stakeholders to the policy process. Respondents noted the leadership of “key allies” including local city councilman Joe Cimperman and the Cleveland-Cuyahoga Food Policy Coalition that have been an important “driving force behind” behind policy change in Cleveland. Additionally, the local government respondents interviewed for this research work in a variety of different departments, indicating the broad awareness and interest of city hall in supporting urban agriculture in Cleveland.

Key Finding #3: An open and receptive municipal government that has actively participated in policy change, working to reduce barriers to the practice of urban agriculture at a variety of scales. The city of Cleveland has been supportive of urban agriculture and worked to accommodate the entire scale of urban agriculture practice, from the community garden to the urban farm. Policy change has been multifaceted and driven by actual urban agriculture practice and local conditions. Urban agriculture policy in Cleveland has been a direct response to the needs of urban food production – whether preserving the community garden that has served a neighborhood for decades or supporting the entrepreneurial market gardener working towards developing a viable business. In many ways the city’s support for urban agriculture has been the result of exploring and responding to both the needs and practicalities of agriculture in the urban
environment as well as the ways in which urban agriculture can serve as an important tool for addressing a myriad of issues that municipal government aims to solve.

**Key Finding #4: Urban food production is not a goal unto itself but is a strategy that is being incorporated into broader municipal policy and planning goals.** The urban agriculture movement in Cleveland continues to grow and gain momentum as the city has chosen to link urban agriculture to broader municipal policy and planning initiatives. As such, urban food production in Cleveland is continuing to broaden its support and gain recognition as tool for achieving multiple municipal goals including the development of economic opportunities, achieving sustainability, and helping to manage vacant land in the city.

**Future Challenges**

Urban agriculture in Cleveland is helping to create community assets out of vacant land in the city. With the help of initiatives like ReImagining Cleveland, urban agriculture gives local residents a greater stake in their community as they become stewards of the land. As the amount of vacant land in Cleveland is expected to grow for the foreseeable future, turning over a greater percentage of this land to local residents for urban agriculture, thereby reducing the city’s costs of maintaining the land, makes fiscal sense.

Cleveland has laid important groundwork to support the city’s growing urban agriculture movement for years to come but it is still too soon to gauge the long-term impact of the city’s policy changes. For example, even with a ready supply of vacant land and a key municipal department – the Cleveland Land Bank – to facilitate access to land, there remains the issue of determining whether urban agriculture is the best use of that site, both in terms of its potential for future development and its suitability for growing food. While the mechanisms like the land use decision tree developed through the ReImagining Cleveland study can help the city to decide a
site’s potential for development, the city has not yet become involved in assessing a lot’s suitability for urban agriculture or preparing a site for urban agriculture purposes like soil testing, site grading or ensuring water access.

Urban food production must not be relied on as a panacea for all of the challenges facing Cleveland as it is still largely unknown whether urban agriculture will have a significant impact in a way that advocates are hoping for. As such, a key challenge may be in finding and replicating projects that can demonstrate measurable impacts. Market gardens of all sizes and scales are one such example of projects with the greatest potential to demonstrate not only economic impact, but social and environmental impacts as one of the few alternative land uses that directly addresses the vacant land problem by turning over derelict land to willing urban farming entrepreneurs.

Most importantly, when applying the lessons of Cleveland to other shrinking cities that are experiencing a growing interest in urban agriculture as well as a glut of vacant land, there are still a number of key challenges facing the development of supportive policy and planning structures for urban agriculture. For one, the discussion of shrinking or planning for shrinking is still politically unpopular even in places like Cleveland and there is currently no real world success in resolving these issues in the U.S. Even with the progress that Cleveland has made, the public discourse is mainly focused on vacant land management strategies that will prepare the city for population growth at some future date.

It seems unlikely that Cleveland will adopt a new policy and planning paradigm that acknowledges shrinkage as a permanent process, nor should the city necessarily seek to do so. During the 1990s, the pace of population loss slowed considerably in Cleveland and the spike in population loss over the course of the last decade may have been artificially high due to the
foreclosure crisis. Although a glut of vacant land and an aggressive stance on demolishing abandoned structures is the current reality for city government, it may not be a permanent one.

While growing food in urban areas is not a radical concept, the scale of urban agriculture that is being proposed in cities like Cleveland requires a level of policy and planning that other cities have only recently begun to consider. It is not yet clear what urban agriculture in Cleveland or any other city will look like in the future, and whether the current development will only be part of another boom and bust cycle in the popularity of urban agriculture. However, with supportive policies and sound planning that consider urban agriculture comprehensively within the broader context of urban development, urban agriculture has a much greater chance of longevity and success.

Cleveland provides a number of important lessons for how cities might be able to support and advance the urban agricultural movement. Their policies for urban agriculture are seeking to be permissive and to expand the opportunities for urban agriculture. Cleveland’s policies have also sought to build on existing activities and programs rather than re-inventing the wheel. The city is working to link urban agriculture with other municipal policy and planning goals. Finally, the success of incorporating urban agriculture into the city’s policy and planning agenda has been aided by champions both in and out of government who are committed to making change happen while engaging a broad set of stakeholders in the process.

**Limitations and Directions for Future Research**

As interest in urban agriculture policy continues to grow, this case study provides in-depth insight into the ways in which one municipal government has chosen to adapt its own policies and planning processes to support urban food production. The limitations of such a focus leave out other important factors that also influence the success of urban agriculture but do
not directly emanate from policy and planning change. The case study presents only one city’s experience with urban agriculture. Additionally, the number and types of people that were chosen for interviews are not necessarily representative of all views on urban agriculture as one of the researcher’s primary goals was to uncover how Cleveland’s policies came to be.

Finally, the policy and planning developments that have taken place in Cleveland are too recent to fully evaluate. Although at the current time these developments are largely acceptable and embraced by the city, it is unknown as to whether this outlook will change as Cleveland changes and develops in the future.

Future research will need to focus on documenting the process of implementing urban agriculture policy. For example, research into the experience of urban farmers and the challenges that they face in accessing land, capital, and markets for their products. As a land management tool, future research should also seek to quantify the benefit and outcomes of vacant land management strategies such as ReImagining Cleveland. Finally, future research will still be dependent on experience gained from the passage of time as these strategies and policies are in their infancy and sufficient time must pass in order to measure their effects.
References Cited


Community Research Partners. 2008. $60 million and counting: The cost of vacant and abandoned properties to eight Ohio cities. Columbus, OH: Community Research Partners.


The City Record, June 9, 2010.

The City Record, March 2, 2011.


Appendix 1

Interview Guide

Questions for all interview respondents:
1. Describe the practice of urban agriculture in Cleveland.
   a. Types of people and organizations that participate in urban agriculture activities.
   b. Types and scale of urban agriculture activities that people and organizations are engaged in.
2. Describe the history of municipal policies or regulations for urban agriculture:
   a. Which person(s) and/or organizations from outside of government were involved in the development of municipal policies for urban agriculture?
      i. What steps did they take in aiding development of current policies?
      ii. Did any particular person(s) and/or organizations play a leadership role in developing current policies?
   b. Which municipal officials and/or departments were involved in the development of policies for urban agriculture?
      i. What steps did they take in aiding development of current policies?
      ii. Did any municipal official(s) and/or departments play a leadership role in developing current policies?
3. Please describe existing municipal policies or regulations for urban agriculture:
   a. How do these policies facilitate and/or restrict urban agriculture activities?
4. Why is urban agriculture an important issue for Cleveland?
5. How does urban agriculture relate to and/or support other municipal policy and planning goals and initiatives?
6. How is urban agriculture being integrated into other municipal policy and planning goals and initiatives?

Questions specifically for urban agriculture projects and sites:
7. Describe the history of this project/site.
   a. How and why did the project/site get its start?
   b. What is the mission and goals of the project/site?
   c. Who does the project/site serve?
   d. How and why was this particular location chosen for the project/site?
8. Describe the process of acquiring and developing the land for this project/site.
   a. How was the land obtained for the project/site?
   b. What are your rights in terms of use of the land for the project/site?
9. Describe the resources that sustain the project/site.

Questions specifically for Municipal Officials and Departments:
10. How is your department involvement in the practice of urban agriculture in Cleveland?
11. Was your department involved in the development of policies for urban agriculture?
    a. If so, what role did it take in aiding the development of current policies?
       i. Did any municipal official(s) and/or departments play a leadership role in developing current policies?
12. What are your department’s key policy and planning goals and initiatives?
    a. How does urban agriculture fit with these goals and initiatives?
Appendix 2

List of Interview Respondents

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Appendix 3:
Cleveland’s Urban Agriculture Policies

Urban Garden District

Zoning Code

Chapter 336 — Urban Garden District

336.01 Urban Garden District

The “Urban Garden District” is hereby established as part of the Zoning Code to ensure that urban garden areas are appropriately located and protected to meet needs for local food production, community health, community education, garden-related job training, environmental enhancement, preservation of green space, and community enjoyment on sites for which urban gardens represent the highest and best use for the community.
(Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

336.02 Definitions

(a) “Community garden” means an area of land managed and maintained by a group of individuals to grow and harvest food crops and/or non-food, ornamental crops, such as flowers, for personal or group use, consumption or donation. Community gardens may be divided into separate plots for cultivation by one or more individuals or may be farmed collectively by members of the group and may include common areas maintained and used by group members.

(b) “Market garden” means an area of land managed and maintained by an individual or group of individuals to grow and harvest food crops and/or non-food, ornamental crops, such as flowers, to be sold for profit.

(c) “Greenhouse” means a building made of glass, plastic, or fiberglass in which plants are cultivated.

(d) “Hoophouse” means a structure made of PVC piping or other material covered with translucent plastic, constructed in a “half-round” or “hoop” shape.

(e) “Coldframe” means an unheated outdoor structure consisting of a wooden or concrete frame and a top of glass or clear plastic, used for protecting seedlings and plants from the cold.
(Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

336.03 Permitted Main Uses

Only the following main uses shall be permitted in an Urban Garden District:
(a) community gardens which may have occasional sales of items grown at the site;

(b) market gardens, including the sale of crops produced on the site.
(Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

336.04 Permitted Accessory Uses

Only the following accessory uses and structures shall be permitted in an Urban Garden District:

(a) greenhouses, hoophouses, cold-frames, and similar structures used to extend the growing season;

(b) open space associated with and intended for use as garden areas;

(c) signs limited to identification, information and directional signs, including sponsorship information where the sponsorship information is clearly secondary to other permitted information on any particular sign, in conformance with the regulations of Section 336.05;

(d) benches, bike racks, raised/accessible planting beds, compost bins, picnic tables, seasonal farm stands, fences, garden art, rain barrel systems, chicken coops, beehives, and children's play areas;

(e) buildings, limited to tool sheds, shade pavilions, barns, rest-room facilities with composting toilets, and planting preparation houses, in conformance with the regulations of Section 336.05;

(f) off-street parking and walkways, in conformance with the regulations of Section 336.05.
(Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

336.05 Supplemental Regulations

Uses and structures in an Urban Garden District shall be developed and maintained in accordance with the following regulations.

(a) Location. Buildings shall be set back from property lines of a Residential District a minimum distance of five (5) feet.

(b) Height. No building or other structure shall be greater than twenty-five (25) feet in height.

(c) Building Coverage. The combined area of all buildings, excluding greenhouses and hoophouses, shall not exceed fifteen percent (15%) of the garden site lot area.

(d) Parking and Walkways. Off-street parking shall be permitted only for those garden sites exceeding 15,000 square feet in lot area. Such parking shall be limited in size to ten percent (10%) of the garden site lot area and shall be either unpaved or surfaced with gravel or similar loose material or shall be paved with pervious paving material. Walkways shall be unpaved except as necessary to meet the needs of individuals with disabilities.
(e) **Signs.** Signs shall not exceed four (4) square feet in area per side and shall not exceed six (6) feet in height.

(f) **Seasonal Farm Stands.** Seasonal farm stands shall be removed from the premises or stored inside a building on the premises during that time of the year when the garden is not open for public use.

(g) **Fences.** Fences shall not exceed six (6) feet in height, shall be at least fifty percent (50%) open if they are taller than four (4) feet, and shall be constructed of wood, chain link, or ornamental metal. For any garden that is 15,000 square feet in area or greater and is in a location that is subject to design review and approval by the City Planning Commission or Landmarks Commission, no fence shall be installed without review by the City Planning Director, on behalf of the Commission, who may confer with a neighborhood design review committee, if one exists, so that best efforts are taken to ensure that the fence is compatible in appearance and placement with the character of nearby properties.

(Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

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**“Chicken and Bee” Zoning**

**Health Code**

**Chapter 205 — Animals and Fowl**

**205.04 Restrictions on the Keeping of Farm Animals and Bees**

Anyone proposing to keep farm animals or bees on a property in the City of Cleveland shall apply for a two-year license from the City of Cleveland through its Department of Public Health on a form provided by that office, with payment of a fee set by the Board of Control.

(a) **Application Contents.** The application for such license shall include, at a minimum, the following information.

(1) the name, phone, phone number and address of the applicant;

(2) the location of the subject property;

(3) the size of the property;

(4) the number of animals or bee hives to be kept on the property;

(5) a description of any proposed cages, coops, beehives, fences or enclosures;

(6) a scaled drawing showing the precise location of cages, coops, enclosures, beehives, stables and fences in relation to property lines and to houses on adjacent properties;
(7) a description of the manner by which feces and other waste materials will be removed from the property or will be treated so as not to result in unsanitary conditions or in the attraction of insects or rodents;

(8) in the case of a lot that is vacant or has no occupied residence, documentation demonstrating that the use will be managed in a manner that prevents the creation of nuisances or unsanitary or unsafe conditions;

(9) a signed statement from the property owner, if the applicant is not the property owner, granting the applicant permission to engage in the keeping of farm animals or bees as described in the registration; and

(10) The addresses of all properties directly adjoining the subject property.

(b) License Approval. The Director of Public Health shall take action on a license application for the keeping of farm animals or bees in accordance with the following provisions:

(1) Approval Standards. In evaluating an application for an initial license or a license renewal, the Public Health Director shall consider any evidence ascertained through inspections of the property or through the submission of evidence regarding nuisances or conditions that are unsafe or unsanitary relative to the subject property and, in particular, any recorded violations. The Director of Public Health may deny a license on consideration of such evidence.

(2) Notification in Residential Districts. Upon receipt of an initial license application for a property located in a Residential zoning district, the Department of Public Health shall send a copy of the license application, along with a comment form, to the owner of each property directly adjoining the property that is the subject of the license application. A copy of these notifications shall be transmitted to the City Councilmember in whose ward the subject property is located. In reviewing the license application, the Director shall consider any evidence submitted by neighbors regarding issues pertinent to the regulations and approval standards for issuance of the license. The Director shall not take action on such license application prior to twenty-one (21) days from the date on which the notice was mailed to the owners of adjoining properties.

(3) Building and Housing Approval. The Public Health Director shall not approve any initial license application for the keeping of farm animals or bees prior to approval of the site plan by the Department of Building and Housing in accordance with the provisions of Section 347.02 of the Zoning Code.

(c) License Expiration. Such license shall expire at the end of a calendar year and shall be renewed once every two years during November or December before the end of the calendar year. The application for renewal of a license need not include drawings and other information regarding conditions that have not changed since submission of such information in a prior license application.
(d) **Lots Without a Residence.** In the case of an application to keep farm animals or bees on a lot that is vacant or has no occupied residence, a License shall be granted only if the applicant submits written documentation satisfactory to the Public Health Director demonstrating that the use will be managed in a manner that prevents the creation of nuisances or unsanitary or unsafe conditions. Where the applicant is not the property owner, a license shall be granted only where the application is accompanied by a signed statement from the property owner granting the applicant permission to engage in the keeping of farm animals or bees.

(e) **Enforcement.** The Director of the Department of Public Health or any authorized City employee shall have the authority to inspect any property to determine compliance with the regulations of Section 347.02 of the Zoning Code regarding sanitation and nuisances and operational practices in the keeping of farm animals or bees and shall have the authority to enforce the regulations of that Section as they apply to such matters.

(f) **Penalties.** If the Director of Public Health determines that an individual is in violation of the provisions of this Section or Section 347.02 with respect to the enforcement responsibilities of the Department of Public Health, the Director shall issue a violation notice to the individual, noting the nature of the violation(s). If the violation is not corrected within seven (7) days of issuance of the violation notice, the recipient of the notice shall be subject to the following penalties and enforcement actions.

1. for a first offense, a fine of fifty dollars ($50);
2. for a second offense occurring within four (4) months of the first offense, a fine of seventy-five dollars ($75);
3. for a third and any subsequent offense occurring within the period of the current two-year license, any farm animals or bee hives associated with the violation shall be removed from the property by the individual or shall be removed and impounded by the Department of Public Health.

(Ord. No. 1562-08. Passed 2-2-09, eff. 2-5-09)

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**Zoning Code**

**Chapter 347 — Specific Uses Regulated**

**347.02 Restrictions on the Keeping of Farm Animals and Bees**

(a) **Purpose.** The regulations of this section are established to permit the keeping of farm animals and bees in a manner that prevents nuisances to occupants of nearby properties and prevents conditions that are unsanitary or unsafe.
(b) *Chickens, Ducks, Rabbits and Similar Animals.* The keeping of chickens, ducks, rabbits and similar farm animals, and cages, coops and enclosures for the keeping of such animals, shall be governed by the following regulations.

(1) *In Residential Districts.* In Residential Districts, the following regulations shall apply:

A. **Number.** No more than one such animal shall be kept on a parcel of land for each 800 square feet of parcel or lot area. For a standard residential lot of 4,800 square feet, this regulation would permit no more than a total of six (6) such animals.

B. **Setbacks.** The coops or cages housing such animals may not be located in front yard or side street yard areas and shall not be located within five (5) feet of a side yard line nor within eighteen (18) inches of a rear yard line, except where the rear lot line forms the side lot line or front lot line of an abutting property, in which case the setback from such rear lot line shall be five (5) feet. No animals shall be kept in required front yard or side street yard areas.

C. **Prohibitions.** No roosters, geese or turkeys may be kept in a Residential District except on a parcel that is at least one (1) acre in area and only if the coop or cage housing the bird(s) is at least one hundred (100) feet from all property lines. For parcels greater than one (1) acre in area, one (1) additional such bird may be kept for each 24,000 square feet in excess of one (1) acre. No predatory birds may be kept on any property under the regulations of this Section.

D. **Coops and Cages.** All animals shall be provided with a covered, predator-proof coop or cage or other shelter that is thoroughly ventilated, designed to be easily accessed and cleaned, and of sufficient size to permit free movement of the animals exclusive of areas used for storage of materials or vehicles. The total area of all coops or cages on a lot shall not be greater than thirty two (32) square feet for up to six (6) animals. Coops and cages, singly or in combination, shall not exceed fifteen (15) feet in height.

E. **Enclosures and Fences.** Chickens and other birds shall have access to an outdoor enclosure adequately fenced or otherwise bounded to contain the birds on the property and to prevent access by dogs and other predators and providing at least ten (10) square feet of area for each bird.

(2) *In Non-Residential Districts.* In zoning districts other than Residential Districts, all regulations applicable in Residential Districts shall apply except that the number of such animals shall be limited to one (1) animals for each four hundred (400) square feet of lot area.

(c) *Goats, Pigs, Sheep and Similar Animals.* The keeping of goats, pigs, sheep and similar farm animals, and stables and enclosures for the keeping of such animals, shall be governed by the following regulations:

(1) *In Residential Districts.* In Residential Districts, no goats, pigs, sheep or similar farm animals shall be kept on a parcel of land less than 24,000 square feet in area. For a parcel that is at least 24,000 square feet in area, a maximum of two (2) such animals may be kept on the property, with one (1) additional animal permitted for each additional 2,400 square feet of area. Stables or
other enclosures for such animals shall not be permitted in front yards or in side street yards and shall be set back at least forty (40) feet from any street and from any property other than a property located in an Industrial District and shall be set back at least one hundred (100) feet from a dwelling on another parcel or from the permitted placement of a dwelling on an adjoining vacant parcel.

(2) **In Non-Residential Districts.** In zoning districts other than Residential Districts, no goats, pigs, sheep or similar farm animals shall be kept on a parcel of land less than 14,400 square feet in area. For a parcel that is at least 14,400 square feet in area, a maximum of two (2) such animals may be kept on the property, with one (1) additional animal permitted for each additional 1,200 square feet of area. Stables or other enclosures for such animals shall be set back at least forty (40) feet from any street and from any property other than a property located in an Industrial District and shall be set back at least one hundred (100) feet from a dwelling on another parcel or from the permitted placement of a dwelling on an adjoining vacant parcel.

(3) **Prohibitions.** No horses, cows, alpacas, llamas or similar animals shall be kept on a property except in areas specifically designated for the keeping of such animals.

(d) **Bees.** The keeping of bees, and associated beehives, shall be governed by the following regulations.

(1) **In Residential Districts.** In Residential Districts, the following regulations shall apply:

A. **Number.** No more than one (1) beehive shall be kept for each 2,400 square feet of lot area, and no beehive shall be kept on a lot less than 2,400 square feet in area.

B. **Location and Setbacks.** No beehive shall be kept closer than five (5) feet to any lot line and ten (10) feet to a dwelling or the permitted placement of a dwelling on another parcel, and no beehive shall be kept in a required front yard or side street yard. The front of any beehive shall face away from the property line of the Residential property closest to the beehive.

C. **Fences and Shrubs.** A solid fence or dense hedge, known as a “flyway barrier,” at least six (6) feet in height shall be placed along the side of the beehive that contains the entrance to the hive, and shall be located within five (5) feet of the hive and shall extend at least two (2) feet on either side of the hive. No such flyway barrier shall be required if all beehives are located at least twenty-five (25) feet from all property lines and for beehives that are located on porches or balconies at least ten (10) feet above grade, except if such porch or balcony is located less than five (5) feet from a property line.

D. **Water Supply.** A supply of fresh water shall be maintained in a location readily accessible to all bee colonies on the site throughout the day to prevent bees from congregating at neighboring swimming pools or other sources of water on nearby properties.

E. **Prohibitions.** No Africanized bees may be kept on a property under the regulations of this Section.
(2) **In Non-Residential Districts.** In zoning districts other than Residential Districts, all regulations applicable in Residential Districts shall apply except that the number of beehives shall be limited to one (1) for each 1,000 square feet of lot area.

(e) **Lots Without a Residence.** Notwithstanding the provisions of Section 337.23 regarding Accessory Uses, farm animals or bees may be kept on a lot that is vacant or has no occupied residence but only if the applicant for such activity submits written documentation to the Director of Public Health, in accordance with the provisions of Section 205.04, demonstrating that the use will be managed in a manner that prevents the creation of nuisances or unsanitary or unsafe conditions.

(f) **Sanitation and Nuisances.** Farm animals shall be kept only in conditions that limit odors and noise and the attraction of insects and rodents so as not to cause a nuisance to occupants of nearby buildings or properties and not to cause health hazards. Furthermore, farm animals shall not be kept in a manner that is injurious or unhealthful to the animals being kept on the property.

(g) **Animal or Bird Noise.** It shall be unlawful for any person or other party operating or occupying any building or premises to keep or allow to be kept any animal or bird that makes noise so as to habitually disturb the peace and quiet of any person in the vicinity of the premises.

(h) **Slaughtering of Animals.** Chickens, ducks, rabbits and similar small animals may be slaughtered on site only if for consumption by the occupants of the premises. No other farm animal may be slaughtered on site.

(i) **Application to Building and Housing Department.** A proposal for the keeping of farm animals or bees is subject to approval by the Department of Building and Housing only if a Building Permit is required by the regulations of division (i)(2) of this section.

(1) **Contents of Application.** The application shall include the information required by the provisions of division (a) of Section 205.04.

(2) **Building Permits.** A Building Permit shall be required for installation of a fence or for construction of a stable or other structure routinely requiring such permit, except that no Building Permit shall be required for cages, coops or beehives that are not permanently attached to the ground or to another structure and do not exceed thirty two (32) square feet in area nor eight (8) feet in height. No Building Permit shall be required for the barrier constituting a required enclosure if such barrier is not permanently attached to the ground and does not exceed three (3) feet in height; and no permit shall be required for a “flyway” barrier not exceeding six (6) feet in height and six (6) feet in length.

(j) **Application to Public Health Department.** In accordance with the provisions of Section 205.04, anyone proposing to keep farm animals or bees on a property in the City of Cleveland shall apply for a two-year license from the City of Cleveland through its Department of Public Health on a form provided by that office.
(k) **Building Conditions.** The keeping of farm animals or bees shall not be permitted on a property occupied by a building that has been condemned by the Department of Building and Housing.

(l) **Enforcement.** The Director of the Department of Building and Housing or the Director's designee shall have the authority to inspect any property to determine compliance with the regulations of this Section regarding the construction and permitted placement of enclosures, fences, cages, coops, beehives, stables and other structures used in the keeping of farm animals or bees and shall have the authority to enforce the regulations of this Section as they apply to such matters. The Department of Public Health shall have the authority to enforce regulations of this Section in accordance with the provisions of Section 205.04.

(m) **Variances.** The Board of Zoning Appeals may vary the regulations of this section as they apply to a particular property if it determines that such variance will be consistent with the stated purpose of this Section.

(n) **Definitions.** Terms used in this Section shall have the meanings assigned to them in the following definitions:

1. **Farm Animal.** “Farm animal” means any domestic species of animal that is kept and raised for use as food or in the production of food or in the operation of a farm and is not an “exotic animal” as defined in Section 603A.02 and is not a house pet such as a dog, cat or similar animal.

2. **Coop and Cage.** “Coop” and “cage” mean a structure, not necessarily attached to the ground, with a top and sides and designed to provide shelter and protection for small animals or birds.

3. **Enclosure.** “Enclosure” means a set of walls or fences designed to confine animals or birds to a space that is large enough to permit the animals and birds to roam relatively freely in an open yard area.

4. **Predatory Bird.** “Predatory bird” means an owl, hawk, falcon, eagle or similar bird that feeds principally by catching living prey.

5. **Similar Animal.** Any farm animal that is similar to other animals listed in a particular category of permitted animals with respect to impacts on nearby properties, including noise, odors, safety hazards or other nuisances.

(Ord. No. 29-10. Passed 3-8-10, eff. 3-11-10)

**Agriculture in Residential Districts**

**Zoning Code**

**Chapter 337 — Residential Districts**

337.02 **One-Family Districts**
In a One-Family District, the following buildings and uses and their accessory buildings and uses are permitted:

(e) Agricultural uses, subject to the regulations of Section 337.25 and Section 347.02.

337.23 Accessory Uses in Residence Districts

(3) Agricultural uses, subject to the regulations of Section 337.25 and Section 347.02 regarding the keeping of farm animals.

337.25 Agricultural Uses in Residential Districts

Agricultural uses in Residential Districts shall be subject to the following regulations and the regulations of Sections 347.02 and 205.02 regarding the keeping of farm animals.

(a) Permitted Accessory Structures. In addition to fences, as regulated in division (b) of this section, a permitted agricultural use may be served by the following accessory structures: sheds, greenhouses, coops, cages, beehives, hoophouses, cold frames, barns, rain barrels, composting, farm stands as regulated in division (d) of this section, and similar structures not exceeding fifteen (15) feet in height.

(b) Fences. Fences for agricultural uses shall be permitted in accordance with the regulations applicable to fences in Residential Districts, except that the following regulations shall apply where an agricultural use is the principal use in a Residential District.

(1) Front Yard and Other Street Yard. A fence located in a required front yard, side street yard or other street yard, shall not exceed four (4) feet in height and shall be either ornamental or black or dark green, vinyl-coated chain link.

(2) Other Locations. A fence located at or behind the setback line of a required front yard or other street yard shall not exceed six (6) feet in height and shall be either ornamental or chain link. Any open lot area between a fence and a street line shall be planted with grass or other vegetation.

(c) Setbacks for Structures. No permitted accessory structures to an agricultural use, other than fences and farm stands, shall be located in a required front yard or side street yard area line or within eighteen (18) inches of an interior side or rear lot line.

(d) Farm Stands and Sale of Produce. The sale of produce and the placement of farm stands shall be permitted only in accordance with the following regulations.

(1) Sale of Produce. Where such sales have been permitted by the Board of Zoning Appeals, agricultural products, plants, eggs and honey grown or produced on a property or within 1,000 feet of the subject property may be sold on the premises of an agricultural use in a Residential District if the agricultural use is the only use of the subject property or occupies at least seventy-five percent (75%) of the property or at least 4,000 square feet. In addition, foods prepared on
site or off site may be sold if the principal ingredients are grown or produced on the subject property or within 1,000 feet of the subject property. No sales shall be made before 8 a.m. or after dusk. Food sales shall be licensed by the Cleveland Department of Public Health if such licensing is required in the City’s Codified Ordinances.

(2) Farm Stands. Where a farm stand has been permitted by the Board of Zoning Appeals, any such farm stand located in a required front yard area in a One-Family or Two-Family District shall be removed from the front yard or stored inside a building on the premises during that time of the year when the garden or farm is not open for public use. Farm stands shall not occupy more than two percent (2%) of the subject property’s land area and, in One-Family and Two-Family Districts, farm stands also shall not exceed 200 square feet in area on the subject property. A farm stand shall be set back at least eighteen (18) inches from any lot line.

(3) Board of Zoning Appeals Approval. No agricultural produce or related products may be sold from the property of an agricultural use and no farm stand for the sale of such products may be located on the property unless the Board of Zoning Appeals determines, after public notice and public hearing, that the farm stand and sales will meet a community need without adversely affecting the neighborhood. In making this determination, the Board shall consider, among others, the following factors:

A. the nature of nearby uses of land with respect to their sensitivity to the activity associated with farm stand sales,

B. the proximity of the farm stand to one-family and two-family houses,

C. traffic volumes on the street on which the subject property is located,

D. the availability of off-street or on-street parking to serve the farm stand use,

E. the proximity of other farm stands serving the immediate area, and

F. the maintenance of a substantially unobstructed view in the set back area which shall include a clear view through the farm stand above a height of three feet.

(e) Signs. Where an agricultural use is the principal use in a Residential District or occupies at least seventy-five percent (75%) of the property or at least 4,000 square feet, one sign shall be permitted on each street frontage identifying the agricultural use and listing hours of operations for market sales and contact information. Such sign shall not exceed four (4) square feet in area and, if freestanding, shall not exceed three (3) feet in height and shall be set back at least five (5) feet from all property lines unless the sign is placed on a permitted farm stand. No signs shall be permitted for an agricultural use that is an accessory use in a Residential District.

(f) Composting. Composting may be conducted on the premises of an agricultural use if limited to use on the subject property and if stored in a manner that controls odor, prevents infestation and minimizes runoff into waterways and onto adjacent properties.
(g) Maintenance. Any land devoted to agricultural use shall be well-maintained and shall be free of excessively tall weeds or grass. All accessory structures to an agricultural use shall also be well maintained.

(h) Building Permits. No Building Permit or Certificate of Occupancy shall be required for establishment of an agricultural use. A Building Permit shall be required for installation of a fence or for construction of a barn or other structure routinely requiring such permit, except that no Building Permit shall be required for cages, coops, beehives or similar structures that are not permanently attached to the ground or to another structure and do not exceed thirty-two (32) square feet in area nor eight (8) feet in height. No farm stand shall be installed without issuance of a Building Permit. The application for such Permit shall include the name, address and phone number of the operator of the farm stand; the length, width and height of the farm stand; a description of the type of produce to be sold from the farm stand; and the name of the property owner. If the applicant is not the property owner, the applicant shall include with the Permit application a written statement from the property owner authorizing the applicant to install and operate the farm stand.

(i) Definitions. As used in this section:

(1) “farm stand” means a temporary structure used for display or sale of produce as described in division (d)(1) of this section and that meets the requirements of this section.

(2) “subject property” refers to a parcel of land or two or more adjacent parcels of land in agricultural use.

(Ord. No. 814-10, Passed 10-4-10, eff. 11-3-10)
(a) **Mapping.** The UAO District shall be mapped on the Zoning Map as an overlay district in areas where it has been determined that urban agriculture is an appropriate use of the land. The minimum size of a UAO District, composed of a single parcel or multiple contiguous parcels, shall be 10,000 square feet.

(b) **Applicability.** The regulations of the underlying district shall govern except where in conflict with any regulation of the UAO District, in which case the regulation of the UAO District shall govern.

(c) **Land Use Analysis.** To assist the City Planning Commission and City Council in determining whether urban agriculture is an appropriate use of particular properties, the City Planning Commission staff shall prepare or cause to be prepared a land use analysis that evaluates the suitability of particular properties for urban agriculture and non-agricultural uses. This analysis shall be presented to the City Planning Commission and City Council prior to a decision on designating land as a UAO District.

### 336A.02 Definitions

(a) “**Urban Farm**” means a parcel of land or multiple contiguous parcels of land managed and maintained by an individual or group of individuals to grow and harvest food crops and/or non-food, ornamental crops, such as flowers, to be sold for profit.

(b) “**Community Garden,**” **Market Garden,**” “**Greenhouse,**” “**Hoophouse,**” and “**Coldframe**” are as defined in Section 336.02.

(c) “**Farm Animals,**” “**Predatory Birds,**” “**Similar Animals**”, “**Coops and Cages,**” and “**Enclosures**” are as defined in Division 347.02(1).

(d) “**Subject Property,**” for purposes of this Chapter, means a parcel of land or two or more adjacent parcels of land in agricultural use.

### 336A.03 Permitted Principal Uses

In addition to the principal or main uses permitted in the underlying zoning district, urban farms, market gardens and community gardens shall be permitted in a UAO District.

### 336.04A Permitted Accessory Uses

In addition to the accessory uses permitted in the underlying zoning district, the following accessory uses shall be permitted in a UAO District:

(a) greenhouses, hoophouses, coldframes, and similar structures used to extend the growing season;

(b) benches, bike racks, raised/accessible planting beds, composting, picnic tables, seasonal farm stands, fences, garden art, rain barrel systems, chicken coops, beehives, and children’s play areas;

(c) buildings, limited to tool sheds, shade pavilions, barns, restroom facilities with composting toilets, and planting preparation houses, in conformance with the regulations of Section 336A.05;

(d) off-street parking and walkways, paved with pervious material, loose materials or hard-surfacing.

### 336A.05 Setback, Height and Coverage Regulations

Buildings and other structures in a UAO District shall be developed and maintained in accordance with regulations of the underlying district except as follows.
(a) **Buildings.** Buildings no greater than thirty-five (35) feet in height shall be set back from property lines of an adjoining Residential District a minimum distance of five (5) feet. Buildings exceeding thirty-five (35) feet in height shall be set back from Residential District property lines a minimum of one (1) foot for each five (5) feet of building height. Buildings other than greenhouses shall cover no more than fifteen percent (15%) of the land area of an urban agriculture use.

(b) **Fences.** Fences are permitted as regulated in the underlying zoning district and Chapter 358, except that in a UAO District, chain link fences up to six (6) feet in height are permitted in all locations, unless the underlying district is a Residential District. In Residential Districts, a chain link fence in a front yard or side street yard shall be set back from the street line at least five (5) feet, with grass or other vegetation planted in front of the fence. If the urban agriculture use in a Residential District is located adjacent to a Residential-zoned lot that is occupied by a house, any fence above four (4) feet in height shall be set back a distance that is at least equal to the required front yard setback for adjoining lots in a Residential District.

### 336A.06 Keeping of Farm Animals and Bees

The keeping of farm animals and bees in a UAO District shall be governed by the following regulations, as well as the regulations of Section 347.02 and the regulations of Section 205.04 regarding licensing.

(a) **Small Size Animals.** The keeping of chickens, roosters, ducks, geese, turkeys, rabbits and similar farm animals, and cages, coops and enclosures for the keeping of such animals, shall be governed by the following regulations.

1. **Number.** No more than one such animal shall be kept for each 100 square feet of land area, except that no more than one rooster shall be kept for each 10,000 square feet of land area.

2. **Setbacks.** The coops or cages housing such animals shall not be located within five (5) feet of a side yard line nor within eighteen (18) inches of a rear yard line, except that roosters shall be kept at least twenty (20) feet from the lot line of a Residential District outside of the UAO District.

3. **Prohibitions.** No predatory birds or roosters raised for fighting may be kept on any property under the regulations of this Section.

4. **Coops and Cages.** All animals shall be provided with a covered, predator-proof coop or cage or other shelter that is thoroughly ventilated, designed to be easily accessed and cleaned, and of sufficient size to permit free movement of the animals, exclusive of areas used for storage of materials or vehicles.

5. **Enclosures and Fences.** Chickens and other birds shall have access to an outdoor enclosure adequately fenced or otherwise bounded to contain the birds on the property and to prevent access by dogs and other predators and providing at least ten (10) square feet of area for each bird.

(b) **Medium Size Animals.** The keeping of goats, pigs, sheep and similar farm animals, and stables and enclosures for the keeping of such animals, shall be governed by the following regulations. No more than one such animal shall be kept for each 4,000 square feet of land area. Stables or other enclosures for such animals shall be set back at least twenty (20) feet from any street, at least five (5) feet from any property line, and at least seventy-five (75) feet from the lot line of a Residential District outside of the UAO District.
(c) *Large Size Animals.* The keeping of horses, cows, alpacas, llamas and similar farm animals, and barns, stables, and enclosures for the keeping of such animals, shall be governed by the following regulations in all zoning districts. No more than one such animal shall be kept for each 8,000 square feet of land area. Stables or other enclosures for such animals shall be set back at least twenty (20) feet from any street, at least ten (10) feet from any property line, and at one hundred (100) feet from the lot line of a Residential District outside of the UAO District.

(d) *Bees.* The keeping of bees, and associated beehives, shall be governed by the following regulations.

1. **Number.** No more than one (1) beehive shall be kept for each 1,000 square feet of lot area.

2. **Locations and Setbacks.** No beehive shall be kept closer than five (5) feet to any lot line and ten (10) feet to a dwelling or the permitted placement of a dwelling on another parcel, and no beehive shall be kept in a required front yard or side street yard. The front of any beehive shall face away from the property line of the Residential property closest to the beehive.

3. **Fences and Shrubs.** A solid fence or dense hedge, known as a “flyway barrier,” at least six (6) feet in height, shall be placed along the side of the beehive that contains the entrance to the hive, and shall be located within five (5) feet of the hive and shall extend at least two (2) feet on either side of the hive. No such flyway barrier shall be required if all beehives are located at least twenty-five (25) feet from all property lines and for beehives that are located on porches or balconies at least ten (10) feet above grade, except if such porch or balcony is located less than five (5) feet from a property line.

4. **Water Supply.** A supply of fresh water shall be maintained in a location readily accessible to all bee colonies on the site throughout the day to prevent bees from congregating at neighboring swimming pools or other sources of water on nearby properties.

5. **Prohibitions.** No Africanized bees may be kept on a property under the regulations of this Section.

### 336A.07 Supplemental Regulations

(a) **Composting.** Composting shall be conducted in a manner that controls odor, prevents infestation and minimizes run-off into waterways and onto adjacent properties. Composting may not be conducted for sale unless permitted by the underlying zoning.

(b) **Retail Sales.** Retail sales are permitted for an urban agriculture use in a UAO District if at least seventy-five percent (75%) of the sales area is devoted to farm produce, including but not limited to produce from the subject property or adjacent properties.

(c) **Slaughtering.** Chickens, ducks, rabbits, and other similar small animals raised on the subject property may be slaughtered on the site if inside a building or if screened from view from adjacent properties.

### 336A.08 Permit Requirements

Except for agriculture uses permitted in Residential Districts outside of UAO Districts, no urban agriculture use in a UAO District shall be established without submission of an application and site plan to the City’s Department of Building and Housing and subsequent issuance of a Certificate of Occupancy or Use Permit. A Building Permit shall be required for installation of
all buildings, fences and other structures except as provided in Division 347.02(i) regarding the keeping of farm animals and bees.