



KINGSTON URBAN AGRICULTURE COMMITTEE

URBAN AGRICULTURE PLANNING & ZONING STUDY

A Report to the Mayor of Kingston, Kingston Common Council, Conservation Advisory Council, and Comprehensive Plan Committee on the Potential of Urban Agriculture in Kingston and recommendations for comprehensive planning and zoning to support the implementation of urban agriculture practices in Kingston, New York.

Presented to the Kingston Conservation Advisory Council on February 6, 2014.

URBAN AGRICULTURE

PLANNING & ZONING STUDY

EXECUTIVE SUMMARY

An Opportune Moment for Urban Agriculture in Kingston

This is a time of unprecedented change in Kingston, New York. A new comprehensive plan is being drafted, grass roots organizing and community organizations are growing, new businesses and restaurants are opening, young families and artists are moving in, and there is a heightened environmental awareness in this small, historic river city of 24,000 people.

Like many North American cities, Kingston experienced growth in the 19th century and decline after World War II. The changes in transportation and commerce that have shaped our lives and the way cities function have also had profound impacts on the way we grow and consume our food. Cities dealing with poverty, joblessness, environmental injustices, and vacant and under-utilized spaces are seeking ways to revitalize. In the past decade, urban agriculture has been pursued by many cities as a strategy to address the relationship between vacant city land, food insecurity, and the need for entrepreneurship and jobs. In the case of every success story, the strength of the local institutional climate was the primary factor for the success of local ventures. The goal of this report is to provide recommendations that support the local institutions that could help urban agriculture succeed in Kingston.

Because Kingston is undertaking a new comprehensive plan, there is an opportunity to participate in the transformative urban agriculture movement that is rapidly growing across the United States. Every day brings news about cities revising their laws, new urban farming groups forming and sharing their experiences, and rooftop enterprises and community gardens changing the way people in urban areas are growing and eating. We can learn from their examples.

This report is intended to identify the specific barriers and propose changes in this small city that would allow its residents to engage in urban agriculture and become a part of “local food systems change.” The first step in this effort requires “removing barriers” by identifying land use regulations that could better support urban agriculture. The next step is to create “positive policies” that can support these beneficial changes. These two steps are the focus of this report.

A Growing Movement in Kingston

In the past decade, several organizations and individuals have coalesced around healthier eating in Kingston, and the interest in urban agriculture has resulted in several farming initiatives. Organizations have arisen to support all aspects of food systems change and a wide range of stakeholders is now involved, including the support of elected officials and government agencies (see Chapter 2). Two Kingston Common Council resolutions and a Mayoral proclamation show the executive and legislative intent and demonstration the commitment to systemic change (see Chapter 2 and Appendix C). In 2013, the Urban Agriculture Committee of Kingston came together to support these efforts and commissioned this report. Our vision is to create an environment in the City of Kingston that can increase

WHAT IS URBAN AGRICULTURE?

Simply defined as the growing of food within cities, urban agriculture may also be understood as a form of “systems change”: a movement of social empowerment that can reduce poverty and food insecurity, support public health, local economic development and community revitalization, reclaim vacant and under-utilized urban spaces, and address the imbalances of the food system.

WHY NOW?

We have the chance to support the update to Kingston's Comprehensive Plan, which is currently underway, and recommend changes to the zoning ordinance and related city ordinances that would remove the current barriers to urban agriculture.

the productivity, understanding, and economy of local food in a way that is healthy and beneficial to all its residents.

Although it sits in the midst of some of the most abundant farmland anywhere, the small city of Kingston in the Mid-Hudson Valley, New York, contains four large “food deserts”¹ (see Figure 1.1). At least one in every five children in Kingston at times lacks adequate food to meet basic nutritional needs and 17.4 percent of the population meets the definition of “low-income” and “low-access” (CRREO 2012). There are at least two “potential environmental justice areas” (areas of high minority population and federal poverty levels) in the city that overlap with these.² Although Kingston boasts a variety of recreational resources, including a nature center and riverfront beach, many of the city’s poorest residents live near only the smallest of its many parks, and many children cannot reach them without braving busy thoroughfares. With nearly a fifth of its population of 24,000 living in poverty and about 44 percent overweight or obese, Kingston may be seen as a case study of the inequities in American society.

Agents of Change

Some powerful agents of change have already arisen in this small, post-industrial city about two hours north of New York City. Numerous community groups have formed to combat the City’s economic decline and social repercussions and together have called for change on a number of fronts. Citizens and organizations in the city are now engaged in many urban agricultural activities from community gardens to beekeeping (see Urban Agriculture in Kingston’s Facebook page).

A few years ago, a related group of residents organized a government reform campaign and succeeded in getting the municipality to commit funds to writing a new, widely inclusive new master plan (the “Comprehensive Plan” or “Kingston 2025”). The City’s previous Comprehensive Plan, last updated in 1961, and its zoning code do not currently contemplate agricultural activities and in some cases may even prohibit them. Led by a group of interested citizens, the Kingston Urban Agriculture Committee sought expert advice on how to proceed with amendments to these documents so that the City of Kingston can support local food production and allow it to flourish.

Phase 1: Removing Barriers to Urban Agriculture

As the first step in this process, the Urban Agriculture Committee is working with individuals from the Kingston Land Trust, the Kingston YMCA Farm Project³, the South Pine Street City Farm⁴, City’s Conservation Advisory Council, Pace Law School’s Land Use Law Center, and Hone Strategic, a local urban planning firm, to generate this report and pursue its implementation. ***The primary goal of this report is to support the update to the Comprehensive Plan, which is currently underway, and recommend changes to the zoning ordinance and related city ordinances that would remove the current barriers to urban agriculture.***

Phase 2: Positive Policies for Local Food Systems Change

After working to incorporate local food production into the Comprehensive Plan, zoning and related city policies in this “Phase 1” report, the Urban Agriculture Committee will then begin to pursue support for urban agricultural activities on both municipally-owned and private property by encouraging partnerships, capacity-building, communication, outreach and education among the many individuals, community organizations, government agencies and private enterprises currently involved in some aspect of food production in our area. “Phase 2” will also involve further research into government and institutional policy changes and successful program approaches. The Urban Agriculture Committee will pursue grants to support the study, as well as initiatives outlined in this report in education, land access, joint use agreements, farm incubation, procurement rule changes, and contract farming, among others.

Food systems change in our region is already under way, supported by increased public interest, consumer orientation, and investments by organizations. Kingston can be a leader among small cities in the Hudson

¹ Food deserts are defined by the U.S. Department of Agriculture as “low income Census tracts where a substantial number or share of residents has low access to a supermarket or large grocery store.”

² For more on Potential Environmental Justice Areas (PEJAs), see <http://www.dec.ny.gov/public/899.html> and for a map of Kingston’s PEJAs, see http://www.dec.ny.gov/docs/permits_ej_operations_pdf/ulsterej.pdf

³ www.facebook.com/KingstonYMCAFarmProject

⁴ <http://southpinestreetcityfarm.org/>

Valley by articulating its goals to improve its environment, local economy, and public health by articulating support for urban agriculture in its comprehensive plan and ordinances. The City's role of connecting people with information, resources, and its ability to change the way we use our land is a powerful catalyst for improving the quality of life for its residents.

Findings and Recommendations

According to our review of practices across the country, the strength of the **local institutional climate** was the primary factor for the success of local urban agriculture efforts.

Immediate Steps: Integration with Comprehensive Planning and Zoning, Capacity Building and Partnerships.

The Kingston Urban Agriculture Committee formed as a result of these changes and is committed to supporting the goals and recommendations of this report, including integrating these goals into the City's Comprehensive Plan, revisions to the zoning code, revisions to the general ordinance, outreach on urban agriculture policies, education on urban agriculture resources, encouraging "communities of practice,"⁵ adopting a mediation mechanism, coordinating with organizations and government agencies, incorporating food and agriculture into local planning efforts, participating in the Food Policy Advisory Council of Ulster County, and supporting access to land. Given the overlapping goals of revitalizing Kingston's Midtown in the Comprehensive Plan and the needs and benefits associated with this urban agriculture initiative, integration of these recommendations would be highly beneficial to the Kingston 2025 vision.

Not all of these recommendations require funds for implementation. Some require coordination and commitment by city departments and organizational partners. The success of an urban agriculture program requires the following short-term actions:

- 1) **Commitment:** A commitment by the City of Kingston, either by the support of the Comprehensive Plan Committee and Planning Department or via Common Council resolution to adopt and integrate the proposed recommendations into comprehensive planning, zoning and related ordinances, and City programs.
- 2) **Comprehensive Plan Integration:** Addition of recommended urban agriculture objectives in this report. Consultation with stakeholders, including Comprehensive Plan Committee and potentially affected groups (see UA Stakeholders, Section 2). Review and integration of recommendations (with or by consultant, if possible). Approval by Comprehensive Plan committee. Adoption by Common Council.
- 3) **Zoning and Related Ordinance Changes:** Revisions to ordinances should be coordinated with the Kingston 2025 Comprehensive Plan and zoning update. Specific recommendations in this report address: use definitions; appearance standards; signage; secondary/accessory agricultural uses; fences and screening; market farms; Right-to-Farm allowances; parking requirements; loading requirements; composting; garbage (solid waste); weeds; municipal water; prescribed burning; and gardening in municipal parks.
- 4) **Capacity Building:** Within the City of Kingston government departments to implement the coordination and organizational support proposed in this report; strengthening of the Conservation Advisory Council with a committee that can support these recommendations; strengthening of the Kingston Urban Agriculture Committee to provide coordination and support for this effort for
 - a. The production and dissemination of educational materials with the help of organizational partners.
 - b. Its work with local agencies and organizations on both urban agriculture and other local food system issues.
- 5) **Partnerships with Supportive Organizations:** Partnerships among the City, the Kingston Urban Agriculture Committee, supportive organizations, and local experts to leverage resources and expertise in support of policy implementation and project coordination.
- 6) **Coordination of Information, Education, and Outreach:** A coordinated effort on the part of city offices, departments, and leaders to work with organizational partners in the community that support

⁵"Communities of practice," a useful, recently coined term, refers to "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly." They are practitioners that form a type of community based on shared interests.

urban agriculture. Working with partners, use the information referenced in this report and best practices resources for information, education and outreach to support an urban agriculture program.

What is the Promise of Urban Agriculture in Kingston?

As we detail in the report, the food and agriculture movement in Kingston is growing stronger daily as community organizations and individuals recognize its potential. For this study, we considered the economic development, environmental and public health development potential for urban agriculture in Kingston. Our land use inventory found that the City of Kingston owns at least 35 acres of vacant land (of more than 800 acres of land classified as “vacant” in the city). Based on figures provided by successful practices in other cities, our research shows that placing 35 acres of Kingston’s urban land in agricultural production would:

- Create between two and five direct, on-farm jobs per acre, or approximately 150 jobs;
- Create additional jobs in the agricultural services sector (equipment sales, composting and soil inputs, and food processing);
- Sequester about 77 tons of CO₂ in well-maintained soil per year;
- Support the development of compost markets that would yield an additional 3,330 tons of avoided CO₂ emissions annually while helping Kingston reduce the overall waste generated in the city of Kingston by 20%, as noted in the adopted Kingston Climate Action Plan; and
- Generate over 1 million pounds of fresh produce for sale into local markets, providing local communities with a nearby source of healthy food.⁶
- Provide over 4 million servings of fresh produce to Kingstonians annually. For a population of 24,000 people, this is about 175 servings per person in the City each year.⁷

These benefits are summarized in the figure below. While based on a 35-acre scenario, these results are scalable. The parcels in question have not been evaluated for suitability, which is recommended in the next phase of study; the projections show the scale of potential benefits to the community in lieu of vacant land.



⁶ Estimates of crop yields from urban farming average about 0.5 pounds per square foot based on an acre of production (for further details, see Appendix D). If all vacant City-owned lots in Kingston (a total of 36.87 acres, or 1.6 million square feet) were cultivated, they would yield 802,944 pounds of food per year.

⁷ The World Health Organization recommends 1.1 pounds of vegetables and fruit in a daily diet.

Report Contents

Note: Chapters 1 – 3 and Appendices A – F are included in the Phase 1 Draft Report to support immediate and short-term recommendations. Chapters 4 and 5 and additional appendices will be generated with a full final report.

1. **Introduction: Urban Agriculture and Planning for Food Systems Change.** How do the national urban agriculture movement and the efforts toward regional and local food systems change support Kingston's potential for urban agriculture?
2. **Urban Agriculture in Kingston Today:** A brief history of community gardening and urban agriculture in Kingston; the policy context; identification of stakeholders
 - **Kingston's Agricultural Context:** A historic market town; farming context; a "food desert"; the urban agriculture movement to date.
 - **Organizational Framework:** The presence of organizational support for urban agriculture, in grass-roots community groups, non-profits, education and government; a listing of stakeholder groups.
 - **The Policy Context for Urban Agriculture:** A review of local, county, state and federal policies affecting urban agriculture potential in Kingston.
3. **Phase 1 Analysis and Recommendations: Local Policy Barriers to Urban Agriculture.**
 - **Zoning Analysis and Recommendations:** A review of zoning barriers to urban agriculture in local policy.
 - **Immediate Steps:** Approval; commitment; Integration with Comprehensive Planning and Zoning
 - **Next Steps:** Institutional Supports; Capacity Building and Partnerships
4. **Phase 2 Focus Areas:** An analysis of the potential for Kingston to implement various elements of food systems change, including:
 - social empowerment opportunities
 - organizational capacity building
 - improved health
 - economic development through jobs , improved property values, import substitution through changes to public and institutional procurement, contract growing, and retail sales;
 - making direct links with urban consumers via farm markets, farm stands, schools restaurants, and retail operations
 - environmental remediation, including soil contamination and mitigation, green infrastructure and stormwater mitigation, and other general environmental hazards and benefits associated with urban agriculture
 - use of resources, such as water, organic waste, vacant City-owned parcels space, and services
5. **Phase 2 Recommendations:** Medium- and longer-term organizational and policy actions to support urban agriculture in Kingston and create Positive Policies for Local Food Systems Change

Phase 2

Appendices:

Photo and Image Credits

Sources and Further Reading

Appendix A: Detailed Analysis of Zoning Ordinance Provisions and Recommendations for Action.

Appendix B: Recommended Standard Urban Agriculture Zoning Definitions

Appendix C: Supporting Resolutions and Mayoral Proclamation in Kingston:

- Kingston Community Gardens Resolution of 2011 (#138)
- Live Well Resolution of 2013 (#162)
- Mayor Gallo's Live Well Proclamation

Appendix D: Typical Urban Agriculture Yields

Appendix E: Best Practices in Urban Agriculture

Appendix F: Model Resolutions

} Phase 2

This report was researched and written by Jennifer Schwartz Berky, principal of Hone Strategic, LLC, an urban planning, historic preservation, and development advising firm located in Kingston New York with legal research support from Jeffrey LeJava, Managing Director of Land Use Law Center for Sustainable Development at Pace Law School. The Kingston Urban Agriculture Zoning Project is a program of the Kingston Urban Agriculture Committee in partnership with Family of Woodstock and Larrecca Music, Inc. It was made possible by generous public support, including a donation from Kevin McEvoy and Barbara Epstein.

1. INTRODUCTION

Urban Agriculture and Planning for Food Systems Change

How do the national urban agriculture movement and the efforts toward regional and local food systems change support Kingston's potential for urban agriculture? In this section, we provide an overview of the substantial resources available to Kingston's leaders to enable urban agriculture.

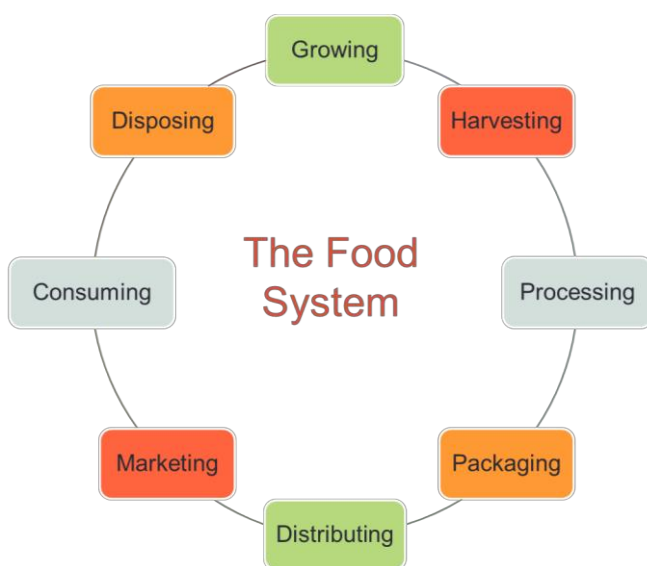
Box 1.1. What is urban agriculture?

Urban agriculture (UA) can be simply defined as the **growing of food within cities**. The Resource Centres on Urban Agriculture and Food Security (RUAUF) Foundation provides a more comprehensive definition:

The most striking feature of urban agriculture, which distinguishes it from rural agriculture, is that it is integrated into the urban economic and ecological system: urban agriculture is embedded in -and interacting with- the urban ecosystem. Such linkages include the use of urban residents as labourers, use of typical urban resources (like organic waste as compost and urban wastewater for irrigation), direct links with urban consumers, direct impacts on urban ecology (positive and negative), being part of the urban food system, competing for land with other urban functions, being influenced by urban policies and plans, etc. Urban agriculture is not a relic of the past that will fade away (urban agriculture increases when the city grows) nor brought to the city by rural immigrants that will lose their rural habits over time. It is an integral part of the urban system (www.RUAUF.org).

Growing food in urban areas has long been a means of feeding populations in many places around the world. Approximately 15 to 20 percent of food is raised in urban settings around the world, according to the United Nations Development Programme (UNDP). This isn't all good news, as the migration of the rural poor to urban areas is part of a worldwide trend associated with poverty. In the last decade, the UA movement has taken off in the US, which has arisen for a number of environmental, social and economic reasons, and is championed as a way to address food insecurity, unemployment, urban decay, and environmental degradation.

The scale of urban agriculture ranges from urban food production – commercial or non-commercial – in small yards and rooftops to agriculture fields of several acres. The range of urban agriculture activities incorporates all aspects of the “food system” from seed to production to table. Participants in this system include farmers, immigrants, home owners, children, the elderly, businesses, restaurants, community centers, government entities, schools, nonprofit organizations and many more.



What is a food system?

Food shapes cities and cities shape the surrounding countryside. Historically, urbanism and agriculture rose at approximately the same time.¹ All aspects of food production and consumption – growing, harvesting or slaughtering, processing, packaging, distribution, marketing, consumption, and disposal – are parts of a food system (see Figure 1.1, left).

In the last decade, there has been increasing debate over the global industrial food system and the benefits of local (or regional) food systems. Questions include whether “food miles” (number of miles a food item travels from farm to consumer) are a reliable indicator of sustainability in the food system. The distance food

Figure 1.1: A Food system and its components. Source: Mary K. Henderson and Mark Porth. *Best Practices and Possibilities*. University of Missouri, Urban Agriculture.

¹ Billen 2011, Charudas, Keene.

travels turns out to be less damaging to the environment (in terms of greenhouse gas (GHG) emissions) than other aspects of food production. The concern, therefore, is less with the transport of food than with the overall sustainability of the methods of food production in the industrial food system.²

The growing body of food systems research suggests that patterns of consumption drive the environmental impacts as much as the production methods. Of course, these go hand-in-hand. Changes to consumption would include: addressing obesity; reducing meat and dairy intake; reducing processed and packaged food intake; consuming more seasonal, local, and robust vegetables and fruit (vs. fragile, high energy, production and transport costing food); reducing trips to the grocery store; reducing inefficient cooking and meal planning; and reducing food waste.

What is happening in Ulster County's "food system"?

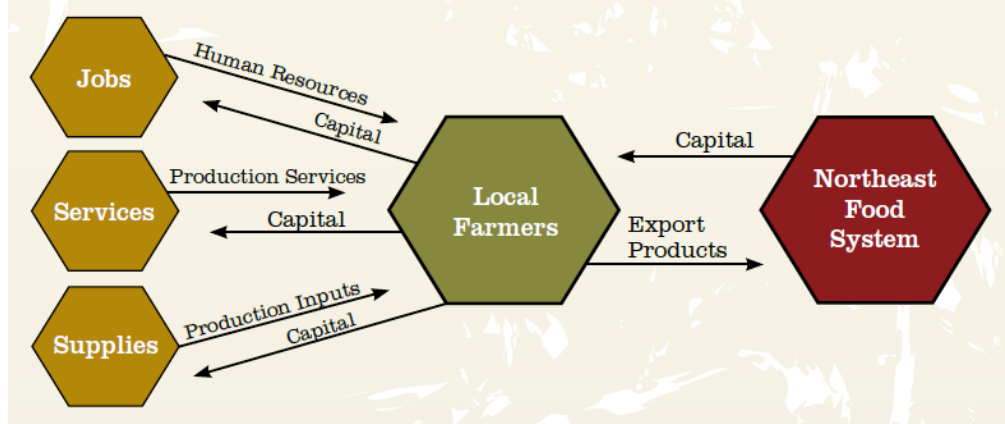
A number of recent studies have examined the current state of our food system. In the broadest terms, there is food insecurity in Ulster County. A report published by the Center for Research, Regional Education and Outreach (CRREO) at SUNY New Paltz (2012) found that three of every twenty residents and one in five children at times cannot meet their basic nutritional needs. Not surprisingly, those most affected tend to be children, the elderly, and low income groups found mostly in the urban and economically disenfranchised areas of the county.

"Low income, lack of transportation, and insufficient awareness of the help that is available all combine to make access to healthy food a significant problem for many people and families in Ulster County, New York."³

The Food Hubs Initiative Report (2013) of the Local Economies Project examined food hubs (entities that "market and distribute local food that is differentiated from the conventional, commodity supply chain") as a means of building the capacity and infrastructure of a resilient food system for the benefit of Hudson Valley farmers and communities:

"One particular weakness in the localized value chain is the lack of packing, storage, and processing infrastructure and services to facilitate access to wholesale channels, such as institutions and retailers."⁴

The Hudson Valley Agribusiness Development Corporation has worked with government, non-profits and farmers in the region to address such problems in the food value chain. Its publication, "Understanding Food Systems: Identifying Business Opportunities for Hudson Valley Farmers and Food Entrepreneurs" is a useful primer on the local food system structure and explains how direct and intermediated marketing tools can support farmers for improving their own business models. The figure below provides a summary of the flow of products and capital through the food system. It is very important to note, as this and the Food Hubs Initiative Report explain, that the global food system is based on farm and food production consolidation on a massive scale that cannot be address only at the local and regional scales. For local food production to be successful, it must learn to compete on the basis of direct and relatively direct intermediation of food sales.



² Tara Garnett, [Where are the best opportunities for reducing greenhouse gas emissions in the food system \(including the food chain\)?](#) Food Policy 36 (2011) S23–S32.

³ Sue Books (2012). Food Insecurity in Ulster County (CRREO Discussion Brief 9, Winter 2012). New Paltz, NY: State University of New York at New Paltz Center for Regional Research, Education and Outreach.

⁴ Food Hubs Initiative Report

At the regional level, the “Mid-Hudson Regional Sustainability Plan”⁵ funded by the New York State Energy Research and Development Authority’s (NYSERDA) Cleaner Greener Cities program for the seven counties of the Mid-Hudson Valley directly calls for the expansion of urban agriculture as “a way to connect consumers with the source of their food and educate them about the value of agriculture in the Region.” It goes on to note that while urban agriculture may not provide a substantial proportion of the region’s food, it can raise awareness, provide seasonal employment, increase fresh food access, and help blighted urban areas. It is important to note that this plan’s explicit support of urban agriculture can allow Kingston to apply for future rounds of New York State grants associated with this program, which is expected to provide ongoing funding through the Regional Greenhouse Gas Initiative.⁶

These and several other recent initiatives take aim at the structural problems associated with the lack of access to healthy food and the challenges of improving local distribution of our sizeable agricultural productivity. While the structural reform in the agricultural industry in the region is too big a topic for this report, there are regional organizations and opportunities that may provide needed support for the urban agriculture initiatives in Kingston:

- **Direct Sales:** The increase in the interest in local food and the direct sales of local produce has encouraged the proliferation of farmers’ markets (particularly the Kingston Farmers’ Market) and Community Supported Agriculture (CSA) ventures. These outlets are notable opportunities for urban agriculture in Kingston.
- **Institutional Support:** The long-standing existence of Cornell Cooperative Extension of Ulster County as a research institution, community resource and partner for farmers through its Master Gardener program, 4-H club, and recent program and policy initiatives such as Healthy Kingston for Kids, Live Well Kingston, and Creating Healthy Places. The Ulster County Department of Health’s Healthy Ulster program is another valuable preventative health resource.
- **Business Support:** The presence of the Hudson Valley Agri-Business Development Corporation, founded in 2007 to provide business assistance to farms in the region can be a source of technical assistance and access to credit for Kingston farmers.
- **Rural Partners:** The formation and increasing professional capacity of the Rondout Valley Growers, an association of farmers in one of Ulster County’s abundant farming areas, has the potential to provide support, expertise, and other forms of exchange with Kingston’s urban agriculture initiatives.
- **Incubators:** The recent creation of a farming incubator at by the Open Space Institute and Glynwood Center at the Brook Farm in New Paltz and the New World Foundation’s “Farm Hub” project at the Gill Farm in Hurley should be seen as opportunities for partnership with larger, non-profit organizations that could support urban agricultural efforts.
- **Policy Support:** The formation of a “Food Systems Advisory Council” for Ulster County spearheaded by Cornell Cooperative Extension’s Creating Healthy Places (CHP) initiative is an opportunity for Kingston’s leaders to participate in the larger policy discussions affecting local food systems.

What is the Promise of Urban Agriculture in Kingston?

As we detail in the next section, the food and agriculture movement in Kingston is growing stronger daily as community organizations and individuals recognize its potential. For this study, we considered the economic development, environmental and public health development potential for urban agriculture in Kingston. Our land use inventory found that the City of Kingston owns at least 35 acres of vacant land (of more than 800 acres of land classified as “vacant” in the city). Based on figures provided by successful practices in other cities, our research shows that placing 35 acres of Kingston’s urban land in agricultural production would:

- Create between two and five direct, on-farm jobs per acre, or approximately 150 jobs;
- Create additional jobs in the agricultural services sector (equipment sales, composting and soil inputs, and food processing);
- Sequester about 77 tons of CO₂ in well-maintained soil per year;
- Support the development of compost markets that would yield an additional 3,330 tons of avoided CO₂ emissions annually while helping Kingston reduce the overall waste generated in the city of Kingston by 20%, as noted in the adopted Kingston Climate Action Plan; and

⁵ http://www.orangecountygov.com/filestorage/124/1362/MHRSP_Book_opt.pdf

⁶ http://www.rggi.org/rggi_benefits/program_investments/new_york

- Generate over 1 million pounds of fresh produce for sale into local markets, providing local communities with a nearby source of healthy food.⁷
- Provide over 4 million servings of fresh produce to Kingstonians annually. For a population of 24,000 people, this is about 175 servings per person in the City each year.⁸

These benefits are summarized in the figure below. While based on a 35-acre scenario, these results are scalable. The parcels in question have not been evaluated for suitability, which is recommended in the next phase of study; the projections show the scale of potential benefits to the community in lieu of vacant land.



What is Need for Planning and Implementing Urban Agriculture in Kingston?

According to our review of practices across the country, the strength of the **local institutional climate** was the primary factor for the success of local urban agriculture efforts.⁹ This study focuses on identifying the approaches in the rapidly growing literature of urban agriculture that can be applied to Kingston, considering the current conditions in this city.

In urban planning, UA presents an opportunity to deal with some of the damage of 20th century development patterns on the urban landscape. An entire field of research is dedicated to urban decline in the United States and its remedies. Many cities, in their efforts to revitalize, have bulldozed, restored, and changed the way they use their land. Detroit, Michigan represents the extreme example of a city that suffered from the effects of urban segregation, crime, population decline, economic disinvestment, and suburban sprawl, but it is not alone. Across the country, the same dynamics played out as a result of the way we live and how we value urban space. In the last generation, the trends have reversed. In the last decade, for the first time since World War II, the majority of Americans say they want to live in "walkable communities."

⁷ Estimates of crop yields from urban farming average about 0.5 pounds per square foot based on an acre of production (for further details, see Appendix D). If all vacant City-owned lots in Kingston (a total of 36.87 acres, or 1.6 million square feet) were cultivated, they would yield 802,944 pounds of food per year.

⁸ The World Health Organization's recommends 1.1 pounds of vegetables and fruit in a daily diet.

⁹ Heather Wooten and Amy Ackerman (2013). *Seeding the City: Land Use Policies to Promote Urban Agriculture*. Oakland, CA: Change Lab Solutions.

Land use laws and policies played a central role in urban decline and are a key to this reversal. Conventional zoning was based on concepts of separating land uses established in the early 20th century. Zoning is legal language that comes out of a vision often articulated in a comprehensive (or master) plan. Zoning is the process a municipality uses to codify its land use plans. It divides the community into districts – or zones – where various uses are permitted and establishes density, dimensions, placement and other development factors. The bulk of this report examines how the community’s vision for Kingston, by way of its Comprehensive Plan, can be incorporated in its zoning ordinance and related policies to help urban agriculture take hold in the city.

The comprehensive plan is the place where communities set their goals and priorities. The City of Kingston is in the process of creating a new comprehensive plan after over 50 years of revising zoning and making changes to its vision for the city based on the 1961 Comprehensive Development Plan (<http://ci.kingston.ny.us/content/4463/default.aspx>). This is therefore where Kingston must begin its commitment to encouraging urban agriculture, which is then translated into law through the zoning ordinance.¹⁰

Kingston zoning and related ordinances do not have adequate, clear allowances for urban agriculture and gardening. The first step should be to discuss with Planning and related departments as well as the elected officials the need to update these procedures. Working with city officials, a public education and input process should be undertaken to determine where urban agriculture activities may occur and under what circumstances. This process would be most sensible as part of the current could be part of the Kingston 2025 Comprehensive Plan and zoning overhaul.

Laying the Policy Groundwork for Local Food System Development

The City of Kingston has an opportunity to support urban agriculture by removing policy barriers and initiating projects to facilitate local food production. When developing policy recommendations for urban agriculture in Kingston, the Urban Agriculture Committee’s research process has included semi-structured interviews of community stakeholders directly involved in urban agricultural initiatives. More in-depth stakeholder outreach will take place in Phase 2 of this study, including city officials, organizational representatives, food industry and farming practitioners in and around Kingston, the school district, and other community members.

Growing the City’s capacity to support a vibrant urban agriculture sector will require a coordinated effort that supports a growing community of practitioners and organizations through encouraging collaboration, engaging in proactive policy development that removes barriers, and very strategic high leverage investment. Rather than build a hierarchy, we recommend connecting existing resources through a networked approach.

Research for this study began with a literature review of best practices on urban agriculture policies and practices in other cities, an assessment of current policies, an analysis of land uses using GIS and parcel information, consultation with local stakeholders, including semi-structured interviews, as well as the attendance and information-gathering at relevant public and professional forums. For implementation of the recommendations in this study, it would be preferable to engage a wider array of stakeholders. This is discussed in greater detail later in this report.

In Phase 1, we considered the implications for integrating language and recommendations into the Comprehensive Plan and zoning ordinance. The recommendations aim to utilize the existing regulatory frameworks and organizational relationships.

Policy Barriers to Urban Agriculture in Kingston

The policy barriers to urban agriculture are a result of laws that were intended to create a built environment in a post-World War II pattern designed to support the “rational” separation of uses based on zones that separated residential, commercial, industrial, agricultural and open space areas. In addition to the barriers in our current zoning system, other barriers to urban agriculture arise from current laws, governance decisions, or implementation conventions that restrict urban agriculture activities.

¹⁰Studies by the University of Missouri and Emory University Law School found that most cities with urban agriculture zoning have also incorporated it into their comprehensive plans. Goldstein, M., et al. (2011). Urban agriculture: a sixteen city survey of urban agriculture practices across the country, p.4, <http://www.georgiaorganics.org/Advocacy/urbanagreport.pdf>.

Barriers we explore in Phase 1 of this report include:

- Lack of a comprehensive planning and zoning framework that supports urban agriculture
- Restrictive zoning rules for structures, including setbacks and lot coverage
- Lack of policies specific to urban agriculture activities
- Lack of clarity on existing urban agriculture policies
- Lack of agricultural expertise at city level
- Lack of coordination between organizations and city

In Phase 2 of our work to promote positive policies and local food systems change, we will explore additional barriers, including:

- Onerous permit process for structures and selling produce
- Prohibitive farm stand regulations
- Prohibitive home occupation regulations
- Lack of practitioner knowledge on best practices
- Lack of access to land
- Soil contamination
- Language barriers
- Neighbor conflicts
- Economic viability of projects

The findings and recommendations are organized in two sections: Phase 1 and Phase 2

Phase 1: Removing Barriers to Urban Agriculture

As the first step in this process, the Urban Agriculture Committee has been working with individuals from the Kingston Land Trust, the Kingston YMCA Farm Project¹¹, the South Pine Street City Farm¹², the Kingston Conservation Advisory Council, Pace Law School's Land Use Law Center, and the former Deputy Director of the Ulster County Planning Board, to generate this report and pursue its implementation. The primary goal of this report is to update the Comprehensive Plan, which is currently underway, and recommend changes to the zoning ordinance and related city ordinances that would remove the current barriers to urban agriculture.

Phase 2: Positive Policies for Local Food Systems Change

After working to incorporate local food production into the Comprehensive Plan, zoning and related city policies in this "Phase 1" report, the Urban Agriculture Committee will then begin to pursue support for urban agricultural activities on both municipally-owned and private property by encouraging partnerships, capacity-building, communication, outreach and education among the many individuals, community organizations, government agencies and private enterprises currently involved in some aspect of food production in our area. Phase 2 will also involve further research into government and institutional policy changes and successful program approaches. The Urban Agriculture Committee will pursue grants to support the study, as well as initiatives outlined in this report in education, land access, joint use agreements, farm incubation, procurement rule changes, and contract farming, among others.

Using Best Practices and Creating Tools

The body of literature on policies and practices in other communities is extremely useful, but it must be tailored to the specific circumstances of Kingston. Research for this study began with a literature review of best practices in other cities, an assessment of current policies in Kingston, an analysis of land uses using GIS and parcel information, consultation with local stakeholders, including semi-structured interviews, as well as the attendance and information-gathering at relevant public and professional forums. For implementation of the recommendations in this study, it would be preferable to engage a wider array of stakeholders. This is discussed in greater detail in recommendations for Phase 2.

Specific recommendations in this report are intended to strengthen the local institutional climate for urban agriculture. This report aims to build such a "toolkit" – one that will require maintenance by the stewards of a coordinated effort to implement urban agriculture. They include:

¹¹ www.facebook.com/KingstonYMCAFarmProject

¹² <http://southpinestreetcityfarm.org/>

- Collection and review of best practices for learning and reference;
- Review of programs and policies supporting UA;
- Catalog of UA initiatives and stakeholders;
- GIS survey of properties to identify zoning issues and city-owned sites with potential for UA;
- Analysis of zoning and related ordinances and recommended changes to the language that include home, school, rooftop, and community gardens, urban livestock and poultry, beekeeping, commercial farming, and the use of agricultural structures such as of greenhouses and hoopouses;
- Recommended language to be incorporated into the Comprehensive Plan that establishes goals, objectives, metrics and strategies for the City to increase local food production;
- Findings for a Phase 2 study to support policies and food systems change for urban agriculture to flourish in Kingston.

The Benefits of Urban Agriculture

Urban agriculture is used in the United States and worldwide as a strategy to reduce urban poverty and food insecurity, improve health and reduce obesity, improve access to fresh food, replace imports and increase economic security, increase jobs (directly in the sector), support social inclusion of the urban poor and women in particular, contribute to greener, more ecologically balanced cities, and incorporate the productive reuse of urban wastes through composting and permaculture.

Here are some of the many benefits of urban agriculture cited in the literature of urban agriculture practices:

Health:

- Nutrition through access to a more diverse and abundant supply and fresh produce with readily available vitamins
- Exercise and recreation

Social:

- Public awareness about sustainable production methods such as organic agriculture, agro-ecology, and permaculture
- Community development through neighborhood involvement, particularly in shared community gardens
- Social empowerment and social justice
- Reliance and accountability in neighborhoods
- Relationships between producer and consumer

Environment:

- Urban beautification
- Ecological restoration: ecological habitat restoration; improved storm water runoff; supporting local biodiversity; mitigation of urban heat island effect; wind reduction; humidity regulation; shade provision
- Reduced energy usage: reduction of “food miles”; recycling of organic waste; use of ecological production methods; import substitution of food that would otherwise be produced through conventional means

Economic:

- Risk management: food security
- Local food-systems change: locally directed buying and selling of food and food system materials; closer connections between producers and consumers; positive effects on property values; better neighborhood conditions and increased tax revenues over time; possible decrease in cost of maintaining public land; increased local employment opportunities, improvement of underutilized land; opportunities for food microenterprises.

Common Challenges and Risks

Although urban food production can be as straightforward as the right combination of soil, water, seeds, and sun, many social and physical characteristics of urbanized areas can pose barriers to agriculture in cities. Common challenges for urban agriculture relate to the inherent difficulties of growing food in an urban environment, including soil contamination, land access, and water access. The Phase 2 report will address

these questions. The goal of this Phase 1 report is to address the immediate concern of removing the barriers in policy (i.e., the comprehensive plan and zoning) to enable urban agriculture to take root.

Care must also be taken to avoid inadvertent negative outcomes resulting from urban food production. Health and environmental risks can include exposure to contaminated soil and unsafe practices in the use of pesticides. Social risks can include the lack of inclusion or inequity if access to urban agriculture isn't carefully considered.

A Vision for Kingston's Future

The City of Kingston could benefit by adding urban agriculture to the number of sustainable development areas it is pursuing. Becoming part of the quickly developing regional efforts to strengthen the local food system can support economic development, foster a stronger and more sustainable community, improve the health of those who live and work in Kingston, and put in place a system that regenerates and protects natural resources and the environment. The Kingston 2025 Comprehensive Plan now underway is an opportunity for Kingston to make a commitment to encouraging urban agriculture, which is then translated into law through the zoning ordinance.¹³

Box 1.2: Articulating a Vision for Urban Agriculture

During this study, we asked members of the Kingston Conservation Advisory Council and followers of the Kingston Urban Agriculture Committee's website (www.grow-kingston.org) and the "Urban Agriculture in Kingston" Facebook page to participate in a discussion of a vision for urban agriculture in Kingston. The results of these discussions generated the following vision:

"We envision a city where everyone who wants to grow or raise their own food has the space, information, and support to do so safely, responsibly, and in solidarity with their neighbors and the greater community. We envision an urban agriculture system that integrates with local and regional systems for a food system that is place based, sustainable, resilient, socially just, and secure."

Planning and zoning for urban agriculture in Kingston can be a framework for systemic land use change that

- allows more community, public and private gardens to grow,
- increases community engagement and involvement,
- is socially inclusive, supporting the quality of life throughout Kingston, as well as the revitalization of the City's poorer and under-served neighborhoods, such as Midtown Kingston,
- helps improve public health, food access and security,
- is educational and supports place-based learning,
- integrates approaches to ecosystem management in the city, such as native species, pollination, storm water management, energy savings and resource protection, and
- improves relationships between natural places, the built environment, and connections to the land.

¹³ Studies by the University of Missouri and Emory University Law School found that most cities with urban agriculture zoning have also incorporated it into their comprehensive plans. Goldstein, M., et al. (2011). Urban agriculture: a sixteen city survey of urban agriculture practices across the country. Page 4. Retrieved from <http://www.georgiaorganics.org/Advocacy/urbanagreport.pdf>.

“There’s something not computing: We’re in an agricultural area, but there is all of this hunger.”—Lorraine Mai, *UlsterCorps*

2. URBAN AG IN KINGSTON TODAY

A brief history of community gardening and urban agriculture in Kingston; the policy context; identification of stakeholders

A Historic Market Town

As a crossroads of valleys and waterways, Kingston was farmed by the Native American Esopus tribe long before it was settled by the Dutch in 1652.¹ The city of Kingston sits at the convergence of Indian trails, fertile river valleys, and a safe, deep harbor on the Hudson River. The settlers farmed side-by-side with the Esopus Indians until disputes between them resulted in the Dutch construction of the Stockade district in 1658 upland from the farmed areas. By the end of the 19th century, the neighborhood was later to become the focal point of Kingston and “thickly covered by dwellings and business places.”²

There has been a continuous presence of farming in and around Kingston, which was an important “market town” since its founding. It “enjoyed a dominant position in the New York agricultural market” through the 1820s, when the Delaware and Hudson Canal brought about a “market revolution” and changed the city to a more industrial mode as it became a hub of trading with markets to the south. Economic changes in the county throughout its history have occurred as trade – local, regional, and global – have been fostered through greater connections to metropolitan New York and beyond. The arrival of New York Thruway (I-87) in 1950s was accompanied by IBM headquarters, suburban sprawl, malls and a changing landscape. Since then, the Hudson Valley has lost farmland at a faster rate than the rest of New York State.

Farming Context

Surrounded by rich Ulster County farmland, Kingston continues to be a center, albeit less connected to its agricultural legacy. Between 1950 and 2007, Ulster County lost 2,051 (or 80.4%) of its farms, a total of 152,292 acres. By 2007, less than a third of the 1950 farmland remained.³ Nonetheless, farming remains an important sector of the local economy. In the last agricultural census (2007), Ulster County had the State’s second-highest sales of fruits, tree nuts, and berries (and ranked second in the State for apples). Other major crops for the county are pears and cabbage.



VIEW OF KINGSTON, 1819. FROM A PAINTING OF JOHN VANDERLYN THE ARTIST.

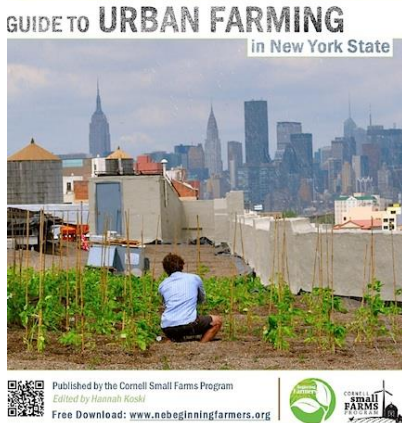
BY the kindness of Miss Kate Vanderlyn, of this city, I have been enabled to produce as a frontispiece for this book a copy of the sketch of Kingston and the Catskill Mountains, which was made in 1819 by her uncle, John Vanderlyn, the artist. The sketch was taken from the bluff of rocks a little to the east of the present junction of Wall and Fair streets. It presents in the foreground the fields, with their dividing fences, lying between the artist and St. James’ Street, which was then the most southerly street. Those fields appearing on the sketch, with the division fences, were then a part of the territory designated as the “Arm-bowery” (poor farm). They are now thickly covered with dwellings and business places. In the background are the lordly Catskills, with the village lying between.

The 1819 view of Kingston (above) by painter John Vanderlyn and the description from the 1888 History of Kingston depict a city that transitioned from agricultural to commercial and industrial in the space of the intervening decades.

¹ Sylvester, Nathaniel Bartlett (1880). *History of Ulster County, New York, with Illustrations and Biographical Sketches of its Prominent Men and Pioneers*. Philadelphia, PA: Everts & Peck.

² Schoonmaker, Marius (1888). *The History of Kingston, New York, from its Early Settlement to the Year 1820*. New York, NY: Burr Printing House.

³ United States Department of Agriculture, *Census of Agriculture 1950 and 2007*.

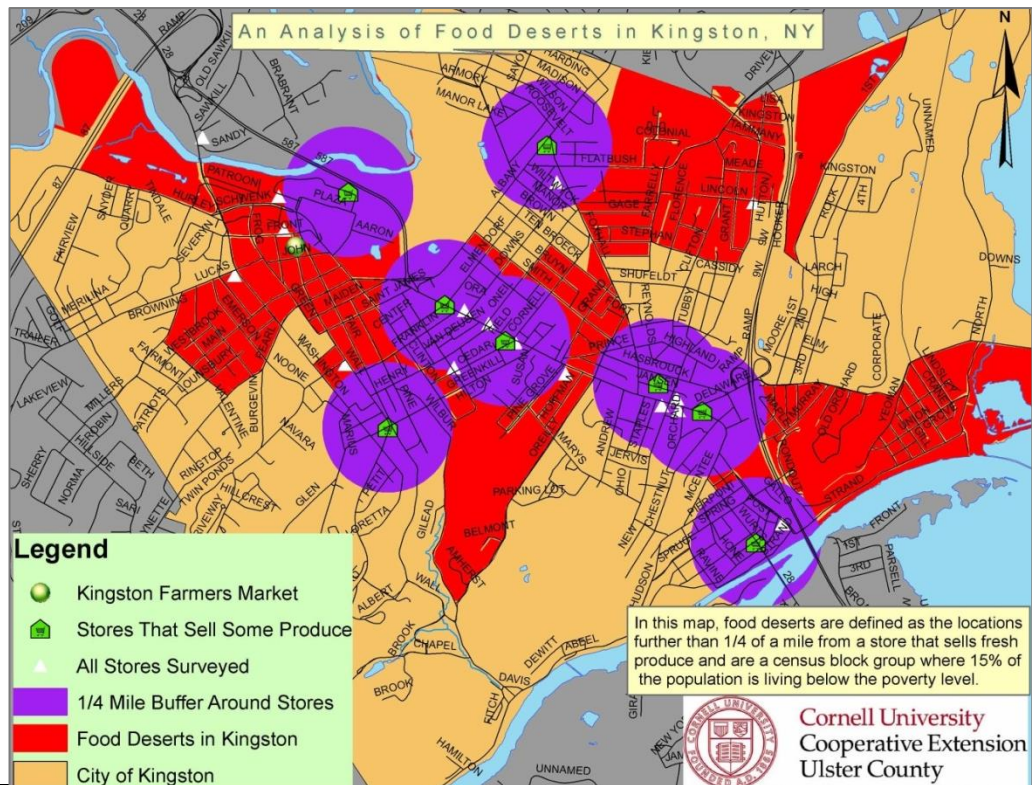


The increasing popularity of buying local produce and direct purchasing from farm stands and farmers' markets have been a boon to farm profitability in New York and the region. Although the number of farms continued to decrease from 532 to 501 from 2002 to 2007, with an overall decrease of 8,213 acres, agricultural output doubled. There are 14 wineries and breweries in the county, which help attract tourists, along with at least 10 farmers' markets⁴, 40 farm stands and "pick-your-own" farms⁵, and new CSAs forming regularly, with at least 10 as of 2012.⁶

In New York State, the interest in urban farming parallels the trend across the U.S. Cornell Small Farms Program recently published a "Guide to Urban Farming in New York State" (Koski 2013)⁷, which provides useful guidance on a number of subjects related to this report for Kingston, as noted below. There are probably many urban farming organizations that haven't yet been counted by the Northeast Beginning Farmer's Project, which has thus far indexed over 40 on their website.⁸ These last two resources, in addition to the many best practices outlined in this report, will be of particular assistance to Kingston UA efforts.

A "Food Desert"

Although it sits in the midst of some of the most abundant farmland anywhere, the small City of Kingston in the Mid-Hudson Valley, New York, contains four large "food deserts," defined as "low income Census tracts where a substantial number or share of residents have low access to a supermarket or large grocery store." See Map 2.1, An Analysis of Food Deserts in Kingston, below. At least one in every five children in Kingston at times lacks adequate food to meet basic nutritional needs and 17.4 percent of the population meets the definition of "low-income" and "low-access" (CRREO 2012). Although Kingston boasts a variety of recreational resources, including a nature center and riverfront beach, many of the city's poorest residents live near only the smallest of its many parks, and many children cannot reach them without braving busy thoroughfares. With nearly a fifth of its population of 24,000 living in poverty and about 44 percent overweight or obese, Kingston may be seen as a case study of the inequities in American society.



Map 2.1: An Analysis of Food Deserts in Kingston, NY. **Source:** Cornell Cooperative Extension of Ulster County.

⁴ <http://www.cceulster.org/Farmers%20Markets%202011.pdf>
⁵ <http://webcache.googleusercontent.com/search?q=cache:-b8YBMf4C2AJ:itsaboutthehudsonvalley.com/farms/farms-Ulster.html+&cd=4&hl=en&ct=clnk&gl=us>
⁶ <http://www.hudson-river-valley.com/hm/Ulster/Link0681.html>, <http://www.valleytable.com/csas.php>
⁷ <http://nebeginningfarmers.org/publications/urban-farming/>
⁸ <http://nebeginningfarmers.org/2013/02/06/appendix/>

The Urban Agriculture Movement in Kingston

A few years ago, a group of residents organized a government reform campaign and succeed in getting the municipality to commit funds to writing a new, widely inclusive master plan (the “Comprehensive Plan”). The City’s previous Comprehensive Plan, last updated in 1961, and its zoning code do not currently contemplate agricultural activities and in some cases may even prohibit them. Led by a group of interested citizens, the Pace Law School’s Land Use Law Center (the Center) is providing advice on how to proceed with amendments to these documents so that the City of Kingston will support local food production and allow it to flourish.

The current urban agriculture movement in Kingston has been propelled by many citizen activists. The Kingston Farmers’ Market was established in 2000 and has become a very popular destination. Another early development in Kingston’s food culture shift was the opening of the Queens Galley in 2007, a soup kitchen with a philosophy of dignity: fresh, chef-prepared, waiter-staffed meals. The Kingston Land Trust, the Kingston Parks and Recreation Department, the Kingston City School District, and Cornell Cooperative Extension of Ulster County all began programs in 2008 and 2009 to support healthier food access and community farming. By 2013, a number of urban agriculture projects were initiated and underway. A timeline of these activities demonstrates the momentum and collaboration among them:



- **2000:** The **Kingston Farmers Market** is established, accepting EBT and focusing on local farms, eventually grows from 12 to over 40 vendors, bringing between 1000 to 2000 shoppers each Saturday, and extending its season from Memorial Day to mid-November.
- **2006:** **Kingston Citizens** is established with the goal of promoting transparency, accountability and participation in Kingston government.
- **2007:** The **Queens Galley** is established and serves over 750,000 meals to anyone without proof of need before **closing its doors in December 2013**. A likely result, the **Caring Hands Soup Kitchen** reported a 66 percent increase in the first two months of 2014.
- **2008:** **Kingston Land Trust** is formed, eventually becoming a 501(c)3 not-for-profit organization.
- **2008:** Kingston Citizens launch **Kingston Victory Gardens** project, including **City Hall Garden** (photo, above).
- **2010:** Creation of **South Pine Street City Farm** with support for lease language from Kingston Land Trust.
- **2010-11:** **The Dig Kids** program is created by the Kingston Land Trust in partnership with **Kingston Cares** (a program of **Family of Woodstock**), the South Pine Street City Farm with support from **Kingston Parks and Recreation Department**.
- **2008-12: Learn and Serve America Grants:** The Kingston Parks and Recreation Department stewarded the installment and maintenance of gardens at eight of ten schools in the **Kingston City School District** which may be used during afterschool hours, as well as gardens on properties of the **YMCA**, Ulster County Mental Health Department and dozens of other sites.
- **2009-12:** The **YMCA** opens a **community gardens** (2009), a **greenhouse** (2011), and a **farm** (2012).
- **2010:** **Healthy Kingston for Kids** project at **Cornell Cooperative Extension of Ulster County**, which aims to reverse childhood obesity in Kingston, is funded by the Robert Wood Johnson Foundation. The **School and Community Gardens Committee** was an active group under this project (2010-2013).
- **2011:** **Community Gardens Resolution** (#138 of 2011) is adopted by the **City of Kingston’s Common Council** with the recognition that “across NY, communities including Kingston are facing high obesity rates that stem from poor eating and lack of exercise...”
- **2011-12:** Healthy Snacks Policy is adopted as part of the **Kingston City School District’s Health and Wellness policy** and passage of a **Live Well Kingston Resolution** (#162 of 2013) by the Common Council, which requires healthy options to be provided wherever food is sold on municipal property and encourages a Healthy Meeting policy.
- **2013:** **Kingston Farmers’ Market in Midtown** is established.
- **2013-2014:** Cornell Cooperative Extension begins the process of forming a **Food Policy Council** for Ulster County.
- **Kingston City Gardens**

Stakeholders in Kingston's Urban Agriculture

The following is a list of the types of individuals, groups, or organizations, including governments, involved in urban agriculture activities that influence decisions or are affected by them. In the recommendations for Phase 1, we suggest a comprehensive approach to identify participants in future organizational planning for urban agriculture.

Citizens: First and foremost, the citizens are the stakeholders in any activity that affects their quality of life. Every effort should be made to conduct outreach that increases public participation among the diverse individuals, groups, and cultural communities living in Kingston.

Urban Farmers and Gardeners: Individuals who currently or might potentially produce food for personal or community consumption, often as part of a broader set of community development goals. These may be landowners or tenants.

Land owners: These may be residents, businesses, religious institutions, schools, or government (and Kingston, Ulster County, New York State, and New York City all own property in the city).

Funders: Private foundations that support urban agriculture and/or urban food systems programs. An interest in urban agriculture is growing within the philanthropic community. In our area, the Local Economies Project (LEP) of the New World Foundation recently announced its "Food Hub" project at the Gill Farm in Hurley, just a few miles outside of Kingston. Its support for the Farm2Table Copackers and other local food-related initiatives demonstrate the importance of philanthropy to food systems change.

Government Officials:

Officials at federal, state, and local government agencies are involved in making urban agriculture possible, even if individual departments or programs do not explicitly include urban agriculture including:

- provision of land for farming, equipment and supplies, from lumber to compost;
- contracting with urban agriculture organizations that provide programs and technical assistance;
- directly offering technical assistance, logistical support, and construction and maintenance help;
- access to grant and loan programs

Federal Agencies:

- **USDA:** The United States Department of Agriculture (USDA) funds urban agriculture research and program development.
- **HUD:** The Department of Housing and Urban Development (HUD) funds programs such as the GreenThumb program in New York City through Community Development Block Grant (CDBG) funding.
- **EPA:** The Environmental Protection Agency (EPA) provides programs and technical assistance to transform land with contaminated soils into safe sites for growing food.

New York State Agencies:

- **Department of Agriculture and Markets:** Ag and Markets works to grow the state's food and agriculture industry. The agency supports programs to assist community gardens, enable low-income New Yorkers to purchase food from farmers markets, increase market demand for New York State food, and build the infrastructure needed by agricultural producers throughout the state.
- **Department of Environmental Conservation (DEC) and Office of Parks, Recreation and Historic Preservation (OPRHP):** DEC and OPRHP have provided funding for urban agriculture and identified urban agriculture as an action item in their last New York State Open Space Conservation Plan (2009). The DEC's Climate Smart Communities program is supportive of communities to take the Climate Smart Pledge (as Kingston did in 2009) and to undertake Climate Action Planning.
- **New York State Energy Research and Development Authority (NYSERDA):** Support for Climate Action Planning for Kingston was provided by NYSERDA. Additional funding for projects that provide related climate planning benefits are among their funding goals.

Ulster County Government:

The Ulster County Executive has been supportive of programs concerning public health and wellness, including "Healthy Ulster," overseen by the **Ulster County Department of Health** as well as farmland

protection and recreation, trails and “Complete Streets” planning overseen by the **Ulster County Planning Department**.

Kingston City Government

- Conservation Advisory Council
- Planning Department
- Parks and Recreation Department

Kingston City School District

- District Wide Parents’ Council
- Food Service Committee
- Parent-Teacher Organizations and Associations

Supportive Community Organizations and Non-Governmental Organizations that provide training, materials, and funding to gardeners and farmers, conduct research and outreach, and encourage elected officials and city agency staff members to develop policies and programs that support urban agriculture. Their work generally includes:

- technical assistance and training for farmers and gardeners,
- funding and resources for programs and site improvements,
- advocacy and policy work,
- environmental education services,
- facilitation of systems to increase the quantity of food grown, marketed, and distributed,
- networking and outreach events for urban farmers and gardeners

These organizations include, but are not limited to:

- American Farmland Trust
- Cornell Cooperative Extension
- Glynwood Center
- Hudson Valley Agri-Business Development Corporation
- Kingston Farmers’ Market
- Kingston Land Trust
- Kingston Urban Agriculture Committee
- New World Foundation
- Open Space Institute
- Rondout Valley Growers Association
- Scenic Hudson
- Trust for Public Land
- YMCA of Kingston and Ulster

Existing Policy Climate

There are relevant policies at the state, county, and local level that can support an urban agriculture program for Kingston. While many of them mention the need for urban agriculture, there is no one, coherent mechanism that supports or organizes the effort. Additional policy and regulatory review beyond the scope of this report may be necessary for Phase 2, including specific definitions and regulations of agriculture in New York State law. Other areas of research should include apiary laws, slaughtering and meat inspection laws, animal cruelty laws, and rules associated with food distribution, processing and handling that could inform local “food systems change.” These will be directly addressed in the Phase 2 study.

It is important to clarify the structure of policies and regulations that govern urban agriculture in Kingston and New York State. New York’s General Municipal Law directs comprehensive plans to consider agricultural uses, historic and cultural resources, coastal and natural and scenic resources and sensitive environmental areas. In addition to the specific elements of the city’s zoning and related aspects of the code, the context of these local laws includes state law, county health regulations and municipal law associated with land use and food production in New York. Likewise, any other plans developed by the City of Kingston should be coordinated with these urban agriculture recommendations.

The purpose of this review is to identify the policies that act as barriers or potential supports for implementing urban agriculture in Kingston.

Comprehensive Planning

The City of Kingston is in the process of creating a new comprehensive plan after over 50 years of revising zoning and making changes to its vision for the city based on the 1961 Comprehensive Development Plan (<http://ci.kingston.ny.us/content/4463/default.aspx>). Section 28-a of New York State General City Law enables cities “to undertake city comprehensive planning and to regulate land use for the purpose of protecting the public health, safety and general welfare of its citizens.” It furthermore states that “[T]he participation of citizens in an open, responsible and flexible planning process is essential to the designing of the optimum city comprehensive plan.”

Open Space Planning

The New York Open Space Plan (2009), a document typically updated every 5 years, is co-authored by the Department of Environmental Conservation and the Office of Parks, Recreation and Historic Preservation. It explicitly calls for greater support of urban agriculture.⁹ Based on this, the Office of Parks, Recreation and Historic Preservation has provided funding for New York City urban agriculture initiatives. The plan specifically recommends providing funding support for farming opportunities in low-income areas, on vacant public and private land, on “underutilized” parkland for farming and educational purposes, for brownfield areas, and for assisting in the remediation of toxic sites of potential community gardens and farms. The plan emphasizes that “This is especially important in cases where municipal park agencies have limited resources and community-based not-for-profits lack the funding match requirement yet have the labor resources to maintain successful permanent community garden sites.”

Box 2.1: NY State Open Space Plan (2009) Support for Urban Farming

The New York State Open Space Plan encourages urban agriculture efforts and could be a valuable policy-based resource for state grant proposals by urban agriculture groups.

Connecting to Our Food & Our Neighborhoods

State law defines community gardens as “public or private lands upon which citizens of the State have the opportunity to garden on lands on which they do not individually own.” There are well over 1,000 registered or permitted community gardens in New York’s cities and many more cases where residents have rescued derelict private or public lots in an effort to build more livable neighborhoods. In many of New York’s cities, not-for-profit urban farms provide access to fresh fruits and vegetables, knowledge of agriculture and nutrition, economic opportunities and healthier environments to the communities they serve.

Farmers’ Markets

Urban agriculture has benefitted from the rapid growth and popularity of our State’s nearly 400 open-air farmers markets, many of which operate in low-income neighborhoods with support from the State’s Farmers Market Nutrition Program. Farmers’ markets are frequently located in public open spaces such as parks, school yards, and even at community gardens and urban farms, and are typically sponsored by municipalities and community-based organizations. They can provide: urban farms with marketing opportunities that encourage youth and adult entrepreneurship in agriculture; infrastructure programs that enable construction and improvement of permanent farmers’ market facilities; and can create new semi-permanent open air market sites to ensure community access to fresh, nutritious locally grown produce while supporting both rural farmland and community gardening, open space protection efforts.

Community supported agriculture (CSA) programs, urban farm stands, and mobile markets that bring local produce to underserved neighborhoods also have proven critical to preserving rural and urban farmland. The majority of New York’s community gardens and urban farms are in low-income and minority communities. However, there is also increasing interest in food producing community gardens in rural areas where land is available, but access to retail outlets for fresh fruits and vegetables is limited.

⁹ New York Open Space Plan (2009), page 39.

Zoning Laws in New York

Zoning governs the way land in a municipality is used and developed. Its goal is to carry out the municipality's long range land use objectives. Zoning regulates how property may be used, the siting of development on the land, and the density of development on the property. In New York, cities, towns and villages are authorized by state statutes.¹⁰ The major types of zoning include residential, commercial, industrial, agricultural, and historic areas. The section below identifies the zoning designations in the City of Kingston and provides an analysis in relation to urban agriculture issues.

New York's zoning enabling statutes (the state statutes which give cities, towns and villages the power to enact local zoning laws) all require that zoning laws be adopted in accordance with a comprehensive plan. The comprehensive plan should provide the backbone for the local zoning law.

Ulster County Open Space Plan

In 2007, Ulster County adopted an Open Space Plan as an element of the Ulster County Comprehensive Plan. It addressed seven resource areas, including agriculture as part of "working landscapes" resources. About 14% of land in the county is agricultural. In the Rondout and Esopus valleys, there are some of the most productive agricultural soils in the state. The plan recognizes that "Protecting agriculture – family farms, food security, food production capacity, and access to locally grown food – is a critical component of sustainability, particularly as energy and transport costs escalate...In addition, tourism and agriculture are two of the top revenue sources in New York State and important to the county's economy. Ulster County has particularly rich natural and historic resources that continue to offer the potential for new, value-added and environmentally-friendly forms of agriculture, tourism and economic development."

Green Infrastructure Plan

The term "green infrastructure" (GI) refers to a set of approaches and technologies that maintain, restore or mimic the natural flow of water in the landscape. GI practices target the sediments and certain other pollutants that wash off of impervious area in these smaller rain events or in the first part of a larger storm (the initial runoff during a storm, known as the first flush.) The Hudson Valley Regional Council (HVRC) received funding from the American Recovery and Reinvestment Act of 2009 to conduct a green infrastructure (GI) planning project in 2010-2011. The results of the work was a set of 10 conceptual and project plans to facilitate ongoing planning, construction, and maintenance of green infrastructure projects on each site. Some of the plans have already been used in seeking grant funding for further planning and construction, as described in the individual reports, such as the Kingston Library and the Sophie Finn school grounds.

Kingston Combined Sewer Overflow Long Term Control Plan (CSO LTCP)

In 2010, the CSO LTCP Study was performed to evaluate whether the City of Kingston's combined sewer system meets the requirements of the USEPA CSO Control Policy and if additional CSO control measures are necessary, to develop and evaluate CSO control alternatives to achieve compliance with the policy. Kingston's Combined Sewer System (CSS) is a high performing system. The system captures for treatment 89 percent of wet weather flows for full treatment at the Wastewater Treatment Facility (WWTF), exceeding the USEPA CSO Policy criteria of 85 percent capture. The CSS has four (4) CSOs: Hasbrouck, Broadway, Wilbur and Hunter. The Hasbrouck CSO collects the majority of the stormwater in Kingston and has had trouble handling the capacity in recent years as the storm events have become more intense. While the report recognizes the role green infrastructure could play in mitigating this problem, it says that it "is not likely to control enough run-off to reduce Hasbrouck overflows to the 4 to 6 events per year used as a target for these evaluations." Nonetheless, urban agriculture has the potential to mitigate stormwater runoff at a site specific level and should be understood as an opportunity to support better ecosystem health.

Kingston Parks and Recreation Master Plan

Prepared in 2012 and presented as a draft in January 2013, the Parks and Recreation Master Plan is a guide for decision-making and development of the parks, recreational facilities and services in Kingston. It mentions agriculture as an aspect of open space in Kingston, but not among its recommendations. It cites efforts to

¹⁰ For cities, the authority for adopting local zoning regulations is set forth in New York State's "enabling" laws, General City Law §20(24):

locate a community garden in Cornell Park: “the park is a good candidate site for a community garden and some fruit trees” (page 35). There are no specific recommendations on how the City can support this.

Beginnings of Urban Agriculture Policy in Kingston: The Community Garden Resolution

In 2011, the City of Kingston’s Common Council passed a Resolution (Resolution #138 of 2011) supporting Community Gardens with the recognition that “across NY, communities including Kingston are facing high obesity rates that stem from poor eating and lack of exercise...” and that “access to healthy, fresh food is often limited, especially in low-income areas, including neighborhoods in the City of Kingston.”

The resolution noted that it was a “priority for local leaders to promote active living, healthy eating, and overall wellness in their communities,” and that they recognized that “community gardens provide an opportunity for citizens to grow their own healthy food, and for connections to be made between gardens and local farmers, Farmer’s Markets, food pantries and schools in order to share resources, expertise and support for the local food economy” and that “community gardens have been proven to provide such benefits to the community as: increase property value, beautification of neighborhoods, reduced heat from city streets and parking lots, preservation of open space, recreational and fitness opportunities, community engagement and unification, reduced crime, connection to the outdoors.” In the resolution, the Common Council also explicitly acknowledged that “the proliferation of community gardens can open up opportunities for grant funding,” a common rationale for planning initiatives.

Further support for local food systems change and this project was provided in the Live Well Resolution of 2013 (#162). Mayor Gallo’s Live Well Proclamation, encouraging citizens “to participate in the activities of Live Well Kingston, which promotes active streets and parks, better access to healthy food, eating well, being safe, and overall active and healthy living in order to create better quality of life for all residents.”

The Kingston Conservation Advisory Council

There are over 300 Conservation Advisory Councils (CACs) in New York, created by action of the local city, town or village legislative body pursuant to state enabling authority. CACs advise the municipality on natural resource issues and are authorized to prepare an open space inventory and map for adoption by the local governing body. Following adoption, CACs are authorized to conduct advisory environmental reviews of projects before the municipal planning board which may impact the lands described in the open space plan.¹¹ The CAC has embarked on an open space mapping and natural resource inventory project that could provide support for urban agriculture in Kingston.

As a volunteer-driven, advisory body, the CAC has limited resources to implement the many environmental initiatives in Kingston. The Climate Action Plan (2010), the Tidal Flooding Task Force Report (2013), and an ongoing, year-long effort to conduct an open space resources survey and “Natural Resources Inventory” are all based on volunteer efforts. The benefits that these and the urban agriculture work can yield are unlikely to be realized if additional resources aren’t invested in them.

¹¹ Article 12-F Section 239-x of the State of New York General Municipal Law states that local legislatures may create a conservation advisory council (CAC) to advise in the development, management and protection of its natural resources. (See http://www.nysaccny.org/article_12-f.pdf.) This legislation also directs CACs to create an open areas inventory and map. These are defined in Section 239-y.

“Although up till now we have failed to see it, reforming the current planning process is actually one of the last great civil rights issues in the United States.”¹

3. PHASE 1 ANALYSIS AND RECOMMENDATIONS:

Local Policy Barriers to Urban Agriculture

What do city zoning and related laws allow? What are the barriers in the current laws? What are some model ordinances and related resources from other cities? How can vacant, small, underutilized and inner-city lots be used? How can we revise inflexible zoning that impedes urban agriculture?

There is very little language in Kingston’s zoning ordinance that mentions or allows activities on the scale of urban agricultural practice. Strictly speaking, if a zoning ordinance does not list a use, it is not allowed. While these activities might be occurring, this means that if neighbors complain, the city may enforce the zoning. In order to support and encourage urban agriculture on a broader scale, many cities in the United States are now allowing agriculture within some or all zones.

While the zoning ordinance has been updated to meet certain needs and changes in Kingston, the City’s Comprehensive Plan has not been updated for over 50 years. Like most traditional zoning codes written in the 20th century, many aspects of Kingston’s zoning are inflexible for the needs of a “walkable,” mixed-use community. For instance, parking requirements have created barriers to greater density and the development of housing has been limited in commercial districts. There are ways to overcome these barriers through careful planning and coordination of appropriately located shared-use parking areas.

One of the most influential urban thinkers of the past generation, Christopher Alexander advocated for a change in zoning in *A Pattern Language*¹, to increase proximity, adjacency, and accessibility between home, work and leisure activities. Changing zoning to support urban agriculture is not intended to threaten the tranquility of residential districts. The “noxious” uses associated with livestock (e.g., noise, odor) would be regulated.

As noted above in the review of related State policies, Section 28-a of New York State General City Law enables cities “to undertake city comprehensive planning and to regulate land use for the purpose of protecting the public health, safety and general welfare of its citizens.” It furthermore states that “the participation of citizens in an open, responsible and flexible planning process is essential to the designing of the optimum city comprehensive plan.” We therefore highly recommend that the Phase 2 study incorporate a well-managed community outreach process to document and address concerns before recommending policy and zoning language.

Zoning Analysis and Recommendations for Action

For the sake of this analysis, urban agriculture is distinct from private, personal-use gardens in their scale and purpose. In Phase 2, we describe a practice of pairing landowners with farmers in exchange for farm shares. This would require zoning that permits the sale of goods from private gardens, a recommendation that is consistent with practices in the zoning ordinances shown below. These operations would require special permits when the scale and size of operations, the structures associated with them, parking needs, and the potential for sale and distribution have implications for the neighborhood.

For a full diagnosis of the code, see Appendix A: Challenges to Urban Agriculture in Kingston. A Detailed Analysis of Zoning Ordinance Provisions and Recommendations for Action.

ZONING TERMS

- **Allowed or “As-of-Right”:** No public hearing required. May require **special permits** for certain uses.
- **Conditional:** Public hearing required. Adjacent properties are notified.
- **Primary Use:** The main use or activity on a property, occupying the majority of the lot.
- **Accessory Use:** A secondary use of a property, occupying no more than 25% of the lot.

¹ Christopher Alexander (1977), *A Pattern Language*. <http://www.patternlanguage.com/> (Last Accessed, January 31, 2014)

Use Districts: Current Allowed Uses in Kingston

The Kingston zoning ordinance and related ordinances do not have adequate, clear allowances for urban agriculture and gardening. No agricultural uses are currently allowed within the commercial and industrial districts or in residential lots under five acres.

Private property owners may have gardens and erect small accessory structures within specific limits on their property. The only place where food production for sale may occur is in residential districts on lots of at least five acres. The zoning refers to these as “Truck Gardens” (a term more typically used in other communities is “Market Gardens”). In these instances, no farm buildings or accessory structures can be any closer than 75 feet from any street or property line, and if it contains livestock, the building must be set back at least 200 feet.

The result is that only a small handful of properties in Kingston may legally grow food for sale. The majority of residential parcels in Kingston are under .25 acres. On these 5+ acre residential sites where the zoning does permit agriculture (RRR, RR, R-1, R-2, R-3, R-4, and R-5, but not R-6, RT, other mixed use residential areas, or any commercial or manufacturing areas), agricultural uses are referred to in the zoning as follows:

“(5) Farms, truck gardens, greenhouses, nurseries and arboretums on lots having an area of at least five acres, including the sale on the premises of produce grown thereon, provided that:

(a) Except as hereinafter provided, any farm building, other than dwellings and buildings accessory thereto, and the heating plant of any greenhouse shall be distant at least 75 feet from any street line or property line.

(b) Farm buildings devoted to or intended for the housing of livestock, horses, rabbits, hares, guinea pigs, ducks, geese, live poultry or fowls of any kind shall be erected at least 200 feet from any street or property line.

(c) No odorous fertilizer shall be stored within a distance of 75 feet of any street or property line.”

Recommendations:

The City should consider whether agricultural uses should be allowed more broadly. The first step should be to discuss with the Planning Department and elected officials the need to update these procedures. Working with city officials, a public education and input process should be undertaken to determine the uses that are best and under what circumstances. This process would be most sensible as part of the current Kingston 2025 Comprehensive Plan and zoning overhaul. Separate amendments to the code are not feasible or recommended. Typically, detailed and broad changes to zoning should take at least a year, involve at least three different means of community input (e.g., meetings, surveys, interviews) and may require a consultant if city staff does not have the time or expertise.

Notable examples of urban agricultural zoning codes and the related language have been useful models for this report:

- **Cleveland, OH** allows agriculture as a principal use on all vacant residentially zoned lots (City of Cleveland Zoning, Ch. 337.02, 337.23, 337.25, 2010)
- **Seattle, WA** allows urban agriculture in all residential zones (City of Seattle Ordinance 123378, 2010).
- **San Francisco, CA** allows urban agriculture (including sales) in residential districts, neighborhood commercial districts, and other districts, with limitations but not complete prohibitions on, compost area placement, fencing, mechanized equipment use, site upkeep, sales, drop-offs, and pick-ups (City of San Francisco, Ordinance 66-11, 2011).

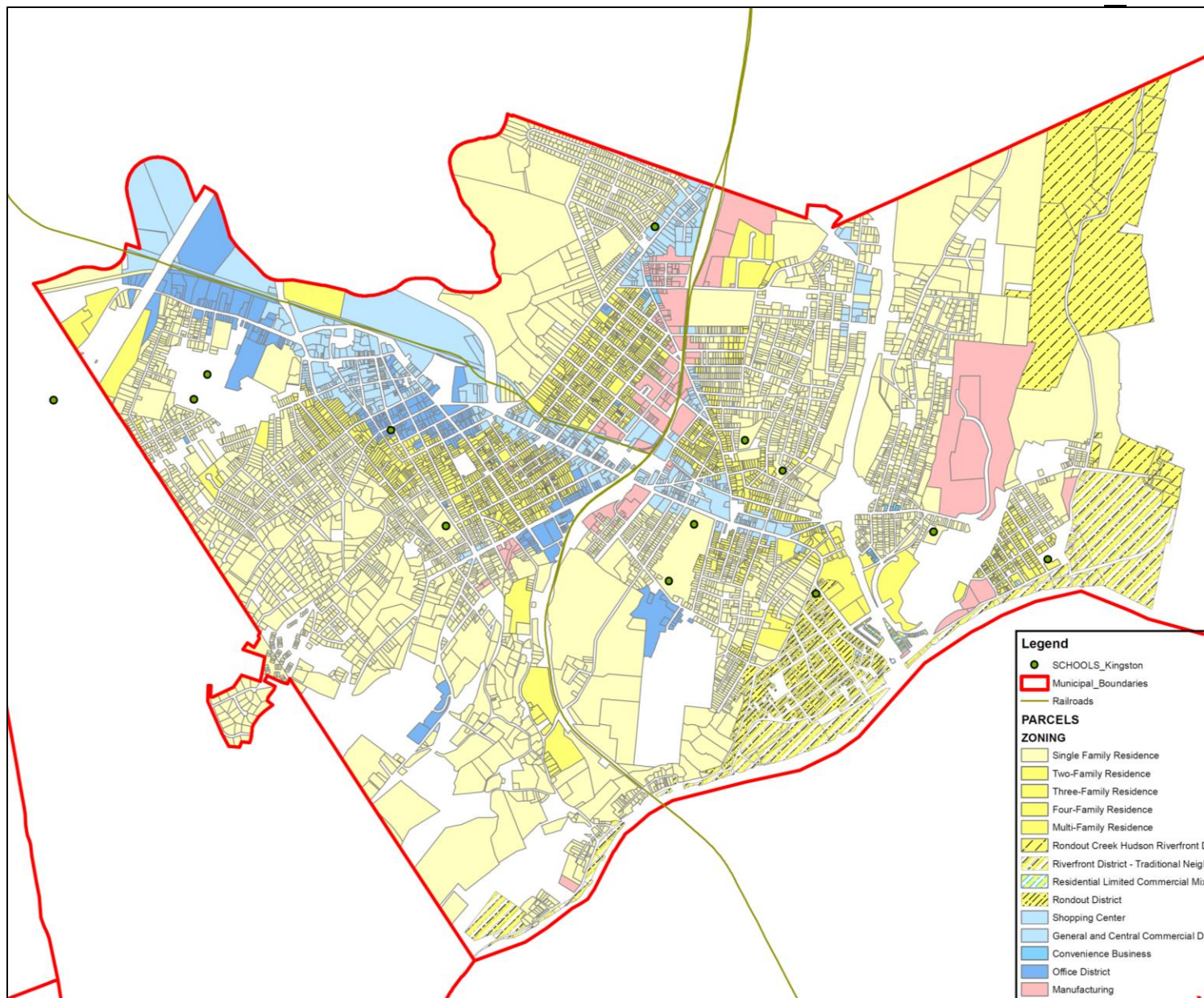
Zoning Designations in Kingston

The local zoning ordinance guides permissions and restrictions for land use in Kingston. Typically, zoning has regulated commercial, residential, and industrial development by height limit, lot size, and setbacks. The zones in Kingston generally fall into three categories: Residential, Commercial, and Industrial. There are also certain mixed-use areas and “overlay zones” to regulate specific needs, such as landmark preservation or flooding areas, which are incorporated into residential and commercial areas.

The matrix below identifies the zoning designations in the City of Kingston.

| Title | Symbol |
|--|----------------------|
| One-Family Residence | RRR, RR, R-1 |
| Two-Family Residence | R-2 |
| Three-Family Residence | R-3 |
| Two-Story Multiple Residence | R-4 |
| Three-Story Multiple Residence | R-5 |
| Multiple Residence | R-6 |
| Rondout District | RT |
| Residential Limited Commercial Mixed Use | RLC |
| Riverfront District | RF-R |
| Rondout Creek Hudson Riverfront District | RF-H |
| Mixed Use Overlay District | TNDOD |
| Shopping Center | C-1 |
| Central Commercial | C-2 |
| General Commercial | C-3 |
| Limited Office | O-1, O-2, O-3 |
| Light Manufacturing | M-1 |
| General Manufacturing | M-2 |
| Flood Hazard Overlay | [no letter assigned] |
| Waterfront Design Overlay | W |
| Landmark District | L |

This map illustrates the zoning divisions throughout Kingston. [NOTE: DRAFT MAP]



Permits and Approvals

The zoning ordinance does not allow for staff approval (e.g., planning, building department) of applications. The lack of flexible approval procedures for certain items that could be clearly spelled out in the zoning results in higher transaction costs for the applicant and the municipality. Some municipalities have created a process called “design review” by which planning staff can approve minor exterior changes and improvements to properties as a quicker means, which would translate to more affordable, timely approvals of urban agricultural land uses and associated buildings. Not all improvements that appear to be small in scope should be approved by staff. The potential implications to the surrounding area should be anticipated in the zoning, but a waiver of full Planning Board review is possible if the zoning can enumerate the conditions for staff design review and approval.

Recommendations: Institute design review for urban agriculture projects. Allow sketch plans and site drawings without a professional seal, which helps lower the transaction cost. Without clear guidance about layout requirements and options, these can be more difficult for a typical applicant to properly produce. A design pattern book is recommended.

Use Listing and Definitions

The zoning ordinance does not have definitions dealing with agriculture such as farms, “truck gardens” (commonly called “market gardens,” farms raising produce meant to be sold locally), greenhouses, nurseries

and arboretums (allowed use in certain districts –see “use districts” recommendations), leaving it unclear what types of agricultural uses are allowed. Agricultural and gardening uses are not defined or listed as possible uses in Kingston’s zoning with the exception of one property type – the single family residence 5 acres or larger. In this case, a market garden (referred to as a “truck garden” in the zoning) is permitted with setbacks of 75 feet for accessory structures and 200 feet for livestock. The one term in the definitions section that seems to be related to urban farming is “roof garden.” However, this refers to an entertainment venue or restaurant on a rooftop.

Recommendations: If new regulations are considered, well-crafted definitions of the uses allowed must be included. See a list of proposed definitions in Appendix B.

Appearance Standards:

Other than the historic districts’ overlay zoning, the ordinance provides few guidelines to assure compatibility with surrounding neighborhoods.

Recommendations: In other districts, the ordinance provides few guidelines to assure compatibility with surrounding neighbors. This may not hinder the physical appearance of urban agricultural structures. However, to assure that UA is perceived as a benefit to the community, appearance standards should be developed throughout the city and reviewed as part of site plans and special permits. (See design review recommendations in zoning recommendations.)

Signage:

Signage tends not to be a specific feature in urban agriculture zoning. Pittsburgh specifically prohibits signage on urban accessory sites, whereas it is not prohibited in the cases of primary uses.²

Recommendations: Allow for signs of the appropriate size and height that communicate what the site is, fit in with the surrounding area, and are affordable.

Accessory Uses and Structures:

Uses can be primary or principal (the main use) or accessory (secondary use). Kingston’s zoning defines “Building, Accessory” as “A building detached from and subordinate to the principal building on a lot and used for purposes customarily incidental to those of the principal building.” Accessory structures are permitted on residential property with specific restrictions that might require adjustment under revisions to the code for urban ag. Kingston’s zoning enumerates accessory uses permitted with the main use and others that require a special permit (i.e., prior approval). Examples of this may include processing produce at the farm site or building a storage facility. These and other accessory uses should be considered in the redrafting of Kingston’s zoning code. Regulations governing the setbacks of accessory buildings are complicated – in each district they are noted in the bulk use table at the end of the zoning chapter (405). However, “The sum of all areas covered by all principal and accessory buildings shall not exceed 25% of the area of the lot,” which could limit an urban farm on a vacant residential lot if structures (sheds, hoopouses, greenhouses) are necessary. However, the regulations do not restrict the number or square footage (only “area”) of accessory buildings. Also, this section requires that a principal building must exist on the site in order for an accessory building to be built or remain.

Recommendations: In terms of urban agriculture, define “garden house,” “tool house,” and “greenhouse” in the zoning definitions section. Allow accessory structures on sites with no principal structure, in the case of urban agricultural uses. In residential areas where the lot is vacant, urban ag activities could involve the construction of a shed, small greenhouse, hoop house or similar structure if it is the only structure on the lot.

Residential Gardens:

Adjacent Lots: The zoning ordinance does not recognize adjacent lots owned by the same property owner as a single lot. (Only in the case of attached dwellings on adjacent lots §405-37, B).

Recommendations: Add definitions of all allowed agricultural or gardening uses (examples in Appendix B) and make sure they are compatible with any New York State laws, especially Right to Farm legislation. Add zoning lot definition and amend to allow zoning lot as a single lot under zoning.

² Pittsburgh Code, Use Regulations, Section 911.04.A.2 , Pittsburgh, PA.

http://www.pittsburghpa.gov/dcp/files/urbanagriculture/City_of_Pittsburgh_Urban_Agriculture_Zoning.pdf (Last accessed January 10, 2014).

Front Yard Gardens:

Front yard gardens have become visible areas of contention in many cities, which have responded in varying ways. Some permit them everywhere, others prohibit them completely (Sacramento, see Box 3.1). In the middle ground, many cities limit certain types of plantings, for example, Kansas City, MO, forbids row crops for sale on front lawns.³ Cleveland, OH does not permit chain link fences in residential districts unless there is an urban agricultural use.⁴

Recommendations: This highlights the reasons for community input in the planning process. Every community has its own sense of place; zoning codes are not “one size fits all,” and should be tailored based on the feedback from citizens. The outreach for this Phase 1 report was limited by the size and scope of the project. For issues that raise the most community concern, such as appearance, livestock, perceived or real nuisances, and contaminated sites, the Phase 2 study should incorporate a well-managed community outreach process to document and address concerns before recommending policy and zoning language.

Box 3.1: Front Yard Gardens

Some communities restrict landscaping in front yards. In Sacramento, California, for example, residents were limited in the percentage of space they could use for cultivating fruits and vegetables in their front yards (but were successful in amending their zoning ordinance to eliminate that restriction). Sacramento, Calif. Zoning Code § 17.68.010(A)(1).⁵



Two stories from South Florida have resonated across the country. In the case of Orlando, Florida (photo, left), the city is rewriting its rules to allow vegetable gardens in the front yard, although a fence requirement may make gardening prohibitive for some property owners, effectively limiting their ability to farm.

In the case of Miami shores, the zoning doesn't allow vegetables and the village council members believe their ordinance will stand up in court.⁶

Community Gardens:

Although the Common Council passed a resolution in support of community gardens, there is no mention of them in the zoning or other City of Kingston ordinances. Community gardens are not allowed as an accessory use on a lot.

Recommendations: Allow agriculture or gardening as a second use referencing case law (state and federal laws on educational and religious uses in particular). A public input process may be necessary.

Hoop Houses:

Hoop houses, which consist of curved metal “hoops” covered in plastic, permit the vegetables to grow in winter without an additional heat source. Kingston's zoning isn't clear about this, except in the dimensions. Provided these are built to the dimensions identified in the zoning, they do not require approval by the Planning Board.

See recommendation under Accessory Structures.

³ Chapter 88, Zoning and Development Code, Ordinance No. 100299, Kansas City, MO.
<http://cityclerk.kcmo.org/liveweb/Documents/Document.aspx?q=gwQ25M6kFLBpQAH2KArtCVQTuNiMyZkVhPHNtnlPCMYJ%2b2FvKs5bOtLbpVG3Tq5a> (Last accessed, January 14, 2014).

⁴ Ch. 337.02, 337.23, 337.25 adopted in 2010, Cleveland, OH.
<http://planning.city.cleveland.oh.us/zoning/pdf/AgricultureOpenSpaceSummary.pdf> (Last accessed, January 14, 2014).

⁵ Cited in *Seeding the City*.

⁶ <http://www.npr.org/blogs/thesalt/2013/12/16/249342738/in-florida-a-turf-war-blooms-over-front-yard-vegetable-gardening>

Air Pollution:

Chapter 135 of the Zoning: Air Pollution and Smoke Control regulates air pollution in Kingston, but makes no mention of open fires or controlled burning typically used as a means of clearing agricultural land. Controlled burn is preferred over chemicals for clearing. New York State Environmental Law Section 215, Open Fires subsection 215.3, “Exceptions and restricted burning” allows “(b) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period” and § 215.3(k), “(k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.”

Animals and Fowl:

The keeping of animals for agricultural purposes (e.g., chickens, bees, goats) is only allowed in the residential lots of five (5) acres or more, as noted above. The ordinances Ann Arbor (Michigan), Cleveland and Seattle limit the number of animals, establish where animals can be kept, and how far structures and pens must be from property lines and adjacent houses. Some cities require licenses to be renewed on an annual or biannual basis. Ann Arbor requires a petition from all neighboring property owners giving their permission for the applicant to keep chickens.

Recommendations: This is a “hot button” issue that could thwart the adoption of other important changes to the zoning to facilitate urban agriculture in the short term. The experience of Flint, Michigan –where the need and interest in urban agriculture was well-established, demonstrates that policy changes such as this take time and should be preceded by public input:

“...an inclusive and community-based approach is essential for giving validity and legitimacy to proposed revisions or plans. Policymakers want to hear from a broad cross-section of the public. Proposed policies should reflect, as well as possible, the wishes and concerns of the community. Proposed new or amended policies will require numerous edits and amendments to address resident concerns, such as how to regulate chicken keeping.”⁷

Market Gardens:

Market gardens, the term widely used to mean farms raising produce meant to be sold locally, are referred to as “Truck Gardens” in the Kingston zoning, although “Truck gardens” are not defined in the definitions section. State laws dealing with the “Right-to-Farm” may apply.

Recommendation: Counsel should review the New York State Right-to-Farm legislation and determine if current regulations on market farms comply. Change if need be.

Fences and Screening:

The restrictions on fencing are not onerous in Kingston’s zoning. Affordable materials are allowed (e.g., chain link, except in Landmark (L) overlay areas). For urban agriculture, the needs for fencing height and type could exceed the limits in certain districts (e.g., 4 feet in the front and 6.5 feet on the sides in residential areas).

Recommendations: Temporary fencing should be treated as a separate category and the time periods allowed for temporary fences should incorporate the growing season for garden and agricultural areas. For permanent fences, allow affordable, appropriate materials for gardens and consider height restrictions. Determine whether a fence or landscaping is needed to protect privacy and health of neighbors. This could be done on a case-by-case basis.

Parking and Loading:

In the residential lots where farming is currently allowed, the zoning only specifies the general standards for on- and off-street parking, loading, screening, and lighting. The zoning has formulas for off-street parking based on ratios (§405-34, J.). Relevant ratios include:

| | |
|------------------------|--|
| Retail sales | 1 space for each 300 square feet of floor area |
| Wholesale, storage and | 1 space for each 3,000 square feet of gross floor area or 1 space for each employee on the largest shift, whichever is greater |

⁷ Leon Chou (2010), “Assessing the local food supply capacity of Detroit, Michigan.” Journal of Agriculture, Food Systems, and Community Development. Volume 1, Issue 2

| | |
|-------------------------------|--|
| warehousing | |
| Off-street loading facilities | 1 berth per 5,000 Square Feet of Gross Floor Area, 2 berths per 10,000 SF/GFA, and 1 additional berth per each 20,000 SF/GFA |

Recommendations: Define the number of parking and loading spaces needed for the use. In residential areas, determine the number that would not disturb neighbors. This could be done on a case-by-case basis. See the example in Appendix D, Best Practices section for parking and loading from Minneapolis.

Municipal Water:

Municipal water is available to urban agricultural uses, but the water department would likely meter the usage. These costs could be prohibitive to urban farmers.

Recommendations: Allow urban agricultural or gardening uses to hook up to municipal water. This may be a policy change rather than an ordinance amendment.

Prescribed burn:

Prescribed or controlled burning is a management tool in rural agriculture and in the conservation of certain natural landscapes. In an urban area, controlled burning could present a nuisance, but is a better alternative than the use of chemicals. New York State Environmental Law permits the on-site burning of “agricultural wastes” but only on sites of five acres or more and within a limited timeframe.

Recommendation: Examine whether regulations could be updated to allow controlled burns to clear and/or maintain land.

Gardening in Municipal Parks

There currently appears to be no allowance for food gardens in municipal parks. The Draft Kingston Recreation Master Plan identifies Cornell Park as “the park is a good candidate site for a community garden and some fruit trees” (page 35).

Recommendation: Community gardens could be construed as a recreational use. If the City wants to allow community gardens in recreational areas, the uses should be explicitly listed and defined.

Summary of Suggested Amendments and Policy Changes to Allow Urban Agriculture

| Topic | Suggested Amendment |
|---------------------------------------|--|
| Use Districts | The City should consider whether agricultural uses should be allowed more broadly. This process would be most sensible as part of the Kingston 2025 Comprehensive Plan and zoning overhaul. Separate amendments to the code are not feasible or recommended. |
| Use Standards and Definitions | Add definitions of all allowed agricultural or gardening uses, and make sure they are compatible with any state laws. |
| Appearance Standards | To assure that UA is perceived as a benefit to the community, appearance standards should be developed throughout the city and reviewed as part of site plans and special permits. |
| Signage | Allow for signs of the appropriate size and height that communicate what the site is, fit in with the surrounding area, and are affordable. |
| Residential Gardens | Add zoning lot definition and amend to allow zoning lot as a single lot under zoning. |
| Secondary/ Accessory Agricultural Use | Allow agriculture or gardening as a second use referencing case law, (state and federal laws on educational and religious uses in particular). A public input process may be necessary. |
| Fences and Screening | Determine whether a fence or landscaping is needed to protect privacy and health of neighbors. This could be done on a case-by-case basis. |
| Temporary Fences | Lengthen temporary fence time period to that of the growing season for garden or agricultural areas. |
| Fences | Allow affordable, appropriate fences for gardens. |
| Market Farms and Right-to-Farm | Have counsel to review state right-to-farm legislation and determine if current regulations on market farms comply. Change if need be. |
| Parking Requirements | Define number of spaces needed for use that would not disturb neighbors. This could be done on a case-by-case basis. |
| Loading Requirements | Decide whether loading space(s) are needed. This could be done on a case-by-case basis. |
| Composting | Allow composting. A public education component may be necessary. |
| Weeds | Exclude food crops from the weeds definition in any weed or nuisance ordinance. |
| Garbage | Define containers required and party responsible for pick-up of garbage at urban agricultural or gardening sites in refuse ordinance. |
| Municipal Water | Allow urban agricultural or gardening uses to hook up to municipal water. This may be a policy change rather than an ordinance amendment. |
| Prescribed Burn | Amend fire or air pollution ordinance to allow a controlled burn with a permit and certain conditions. |
| Gardening in Municipal Parks | Allow for growing and harvesting of crops from a community garden in a municipal park. |

Recommendations for Phase I: Removal of Barriers to Urban Agriculture

Integration with Comprehensive Planning and Zoning, Capacity Building and Partnerships

The Kingston Urban Agriculture Committee formed as a result of the increased interest in local food production in Kingston. It is committed to supporting the goals and recommendations of this report, which include the integration of these goals into the City's Comprehensive Plan, revisions to the zoning code, revisions to the general ordinance, outreach on urban agriculture policies, education on urban agriculture resources, encouraging communities of practice, adopting a mediation mechanism, coordinating with organizations and government agencies, incorporating food and agriculture into local planning efforts, participating in the Food Policy Advisory Council of Ulster County, and supporting access to land.

In addition to the zoning considerations recommended above, the following steps are recommended for successful implementation of urban agriculture activities in Kingston and inclusion in the Comprehensive Plan and zoning for the city. Most of these recommendations **do not** require funds for implementation. Some require coordination and commitment by city departments and organizational partners.

The success of an urban agriculture program requires:

- 1) **Commitment:** A commitment by the City of Kingston, either by the support of the Comprehensive Plan Committee and Planning Department or via Common Council resolution to adopt and integrate the proposed recommendations into comprehensive planning, zoning and related ordinances, and City programs.
- 2) **Comprehensive Plan Integration:** Addition of recommended urban agriculture objectives in this report. Consultation with stakeholders, including Comprehensive Plan Committee and potentially affected groups (see UA Stakeholders, Section 2). Review and integration of recommendations (with or by consultant, if possible). Approval by Comprehensive Plan committee and adoption by Common Council are recommended. Specific language for the Comprehensive Plan could include recommendations to:
 - a. **Adopt a formal policy on UA.** Our recommendations will be to incorporate this into the Comprehensive Plan under the vision statements regarding environmental, health, and social benefits for the city and as part of the objectives and specific plan/policy language dealing with environment and open space.
 - b. **Provide access and support** for the administration of public urban ag sites and zoning review of private sites that is just, equitable, and sensitive to the needs and characteristics of the community, including the following measures:
 - i. Develop an inventory management plan to expand the inventory and administer the use of the sites;
 - ii. Make the data accessible to community groups, educators, farmers, and residents interested in using the land identified.
 - iii. Develop use-specific evaluation criteria collaboratively with relevant city bureaus; and raise awareness of how UA contributes to the city's sustainability.
 - c. **Develop institutional supports.**
 - i. Establish mechanisms to facilitate cooperation and partnerships between relevant city departments, food banks, and other community services to promote UA; fund and staff a formal municipal community garden program to manage UA initiatives throughout the city.
 - ii. Develop of evaluation criteria and review of parcel suitability for UA.
 - iii. Form an Urban Agriculture Commission (this may begin as a committee of the CAC or continue as our ad hoc Urban Agriculture Committee) to review plans and policies and make recommendations on urban agricultural issues.
- 3) **Zoning and Related Ordinance Changes:** Revisions to ordinances should be coordinated with the Kingston 2025 Comprehensive Plan and zoning update. Specific recommendations in this report address: use definitions; appearance standards; signage; secondary/accessory agricultural uses; fences and screening; market farms; Right-to-Farm allowances; parking requirements; loading requirements; composting; garbage (solid waste); weeds; municipal water; prescribed burning; and gardening in municipal parks.
- 4) **Capacity Building:** Within the City of Kingston government departments to implement the coordination and organizational support proposed in this report; within the Conservation Advisory Council with a

committee that can support these recommendations; within the Kingston Urban Agriculture Committee to provide coordination and support for this effort for:

- a. The production and dissemination of educational materials with the help of organizational partners; and
 - b. Its work with local agencies and organizations on both urban agriculture and other local food system issues.
- 5) **Partnerships with Supportive Organizations:** Build partnerships among the City, the Kingston Urban Agriculture Committee, supportive organizations, and local experts to leverage resources and expertise in support of policy implementation and project coordination.
- 6) **Coordination of Information, Education, and Outreach:** A coordinated effort on the part of city offices, departments, leaders to work with organizational partners in the community that support urban agriculture. Working with partners, use the information referenced in this report and best practices resources for information, education and outreach to support a UA program.

Kingston is in a dynamic phase of its development. There has been significant growth in community leadership. The challenge for Kingston is to harness this energy in a collaborative fashion. In our region, there are three times more non-profit organizations than the national average (Marist, Urban Institute). In Kingston and Ulster County, they tend to be very small and can be unsustainable as a result of limited and variable funding. According to extensive research on nonprofit trends by the Urban Institute, the growth of the non-profit sector is rapid, but potentially unsustainable.⁸ Experts in the nonprofit and development sectors have increasingly focused on mergers and collaborations as a means of avoiding failure. The Dyson Foundation, our region's leading philanthropist, focuses its organizational grants on this principle as a means of supporting capacity and community development. This is prompted by a recognition by the philanthropic community nationwide that collaboration is critical to the success of communities, whether their resources are limited or not.

Where resources are scarce, organizations within communities should attempt to leverage one another's resources. The recommendations in the upcoming Phase 2 report, which will be elaborated in section 4 and 5 of this report as they are issued, emphasize the importance of partnerships among the City, the Kingston Urban Agriculture Committee, and the other supportive organizations and groups based on their resources and expertise to help implement policies and projects for urban agriculture. Each organization has core strengths; a stronger **local institutional climate** would require a more collaborative, coordinated framework for urban agriculture to flourish.

⁸ Even during and after the recession, from 2007 to 2010, nonprofit employment grew 4 percent and wages increased 6.5 percent, while they decreased in the business sector by 8.4 percent and 8 percent, respectively, and increased only 1 percent and 4.8 percent, respectively, for government. However, in 8 of the past 10 years, the nonprofit sector spent more than it earned. The gap between revenues and outlays was \$65 billion in 2008, 2009, and 2010.

Appendices

APPENDIX A: Challenges to Urban Agriculture in Kingston. A Detailed Analysis of Zoning Ordinance Provisions and Recommendations for Action.

APPENDIX B: Recommended Standard Urban Agriculture Zoning Definitions

APPENDIX C: Supporting Resolutions and Mayoral Proclamation in Kingston:

- Kingston Community Gardens Resolution of 2011 (#138)
- Live Well Resolution of 2013 (#162)/Mayor Gallo's Live Well Proclamation

APPENDIX D: Typical Urban Agriculture Yields

APPENDIX A: Challenges to Urban Agriculture in Kingston. A Detailed Analysis of Zoning Ordinance Provisions and Recommendations for Action.

| Ordinance | Challenge to Urban Agriculture | Recommended Actions |
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| <p>Zoning Ordinance: Use Districts (Currently Allowed Uses in Kingston)</p> | <p>Of the 8,147 parcels in the city, only 57 are residential lots of 5 acres or more, the only lots where farming is allowed. In RRR, RR, R-1, R-2, R-3, R-4, and R-5 (but not R-6, RT, other mixed use residential areas, or any commercial or manufacturing areas), agricultural uses are as follows:</p> <p>(5) Farms, truck gardens, greenhouses, nurseries and arboretums on lots having an area of at least five acres, including the sale on the premises of produce grown thereon, provided that:</p> <p>(a) Except as hereinafter provided, any farm building, other than dwellings and buildings accessory thereto, and the heating plant of any greenhouse shall be distant at least 75 feet from any street line or property line.</p> <p>(b) Farm buildings devoted to or intended for the housing of livestock, horses, rabbits, hares, guinea pigs, ducks, geese, live poultry or fowls of any kind shall be erected at least 200 feet from any street or property line.</p> <p>(c) No odorous fertilizer shall be stored within a distance of 75 feet of any street or property line.</p> | <p>The Kingston zoning ordinance and related ordinances do not have adequate, clear allowances for urban agriculture and gardening. No agricultural uses are currently allowed within the commercial and industrial districts or in residential lots under 5 acres.</p> <p>The City should consider whether agricultural uses should be allowed more broadly.</p> |
| <p>Permits and Approvals</p> | <p>The zoning ordinance does not allow for staff approval (e.g., planning, building department) of applications. The lack of flexible approval procedures for certain items that could be clearly spelled out in the zoning results in higher transaction costs for the applicant and the municipality. Some municipalities have created a process called “design review” by which planning staff can approve minor exterior changes and improvements to properties as a quicker means, which would translate to more affordable, timely approvals of urban agricultural land uses and associated buildings. Not all improvements that are appear to be small in scope should be approved by staff. The potential implications to the surrounding area should be anticipated in the zoning, but a waiver of full Planning Board review is possible if the zoning can enumerate the conditions for staff design review and approval.</p> | <p>Institute design review for urban agriculture projects. Allow sketch plans and site drawings are permitted without a professional seal, which helps lower the transaction cost, but without clear guidance about layout requirements and options, these can be more difficult for typical applicant to properly produce. A design pattern book is recommended.</p> |
| <p>Zoning Ordinance: Definitions</p> | <p>The zoning ordinance does not have definitions dealing with agriculture such as farms, “truck gardens” (commonly called “market gardens,” farms raising produce meant to be sold locally), greenhouses, nurseries and arboretums (allowed use in certain districts—see “use districts” below), leaving it unclear what types of agricultural uses are allowed. Agricultural and gardening uses are not defined or listed as possible uses in Kingston’s zoning with the exception of one property type – the single family residence 5 acres or larger. In this case, a market garden (referred</p> | <p>If new regulations are considered, well-crafted definitions of the uses allowed must be included. See a list of proposed definitions in Appendix B.</p> |

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| | to as a “truck garden” in the zoning) is permitted with setbacks of 75 feet for accessory structures and 200 feet for livestock. The one term in the definitions section that seems to be related to urban farming is “roof garden.” However, this refers to an entertainment venue or restaurant on a rooftop. | |
| Zoning Ordinance: Appearance Standards | There are numerous appearance standards in the zoning. They exist in the Historic and Architectural Design Districts as detailed in Chapter 264 for the Stockade (Uptown) National Historic District, as well as others enumerated in Chapter 405, Zoning, for the Broadway Overlay District Design Standards (§405-31.2), Landmark Districts (L) (§405-62, 63) (including the Stockade, Rondout, Fair Street and West Chestnut districts) the TNOD Traditional Neighborhood Design Overlay District (§405-27-2), and the Waterfront Design Overlay District (§405-27). These standards address materials, signage, setbacks, fencing and screening, as well as other aspects of scale and character in these districts. | In other districts, the ordinance provides few guidelines to assure compatibility with surrounding neighbors. This may not hinder the physical appearance of urban agricultural. However, to assure that UA is perceived as a benefit to the community, appearance standards should be developed throughout the city and reviewed as part of site plans and special permits. (See design review recommendations in zoning recommendations.) |
| Zoning Ordinance: Signage | Signage tends not to be a specific feature in urban agriculture zoning. Pittsburgh specifically prohibits signage on urban accessory sites, whereas it is not prohibited in the cases of primary uses. ¹ | Allow for signs of the appropriate size and height that communicate what the site is, fit in with the surrounding area, and are affordable. |
| Zoning Ordinance: Site Plan Review | All changes in land use, including: (1) The erection or enlargement of buildings in districts other than one-, two- or three-family residences, unless enlarging a structure in a landmark district or the Rondout district; (2) all uses of land where no building is proposed and where a building permit or certificate of occupancy is not required; (3) any change in use or intensity of use which will affect the characteristics of the site in terms of parking, loading, drainage, access or utilities; (4) the erection or enlargement of all structures, including one-, two- or three-family residences, in all L Landmark Districts and in the RT Rondout District; and (5) Any application for a special permit. | (Same text as recommendations for Permits and Approvals, above.) Institute design review for urban agriculture projects. Allow sketch plans and site drawings are permitted without a professional seal, which helps lower the transaction cost, but without clear guidance about layout requirements and options, these can be more difficult for typical applicant to properly produce. A design pattern book is recommended. |
| Zoning Ordinance: Accessory Uses in Residential Districts | Uses can be primary or principal (the main use) or accessory (secondary use). Kingston’s zoning defines “Building, Accessory” as “A building detached from and subordinate to the principal building on a lot and used for purposes customarily incidental to those of the principal building.” Accessory structures are permitted on residential property with specific restrictions that might require adjustment under | In terms of urban agriculture, define “garden house,” “tool house,” and “greenhouse” in the zoning definitions section. Allow accessory structures on sites with no principal structure, in the case of urban agricultural uses. In |

¹ Pittsburgh Code, Use Regulations, Section 911.04.A.2, Pittsburgh, PA. http://www.pittsburghpa.gov/dco/files/urbanagriculture/City_of_Pittsburgh_Urban_Agriculture_Zoning.pdf (last accessed January 10, 2014).

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| | <p>revisions to the code for urban ag. Kingston’s zoning enumerates accessory uses permitted with the main use and others that require a special permit (i.e., prior approval). Examples of this may include processing produce at the farm site or building a storage facility. These and other accessory uses should be considered in the redrafting of Kingston’s zoning code. Regulations governing the setbacks of accessory buildings are complicated – in each district they are noted in the bulk use table at the end of the zoning chapter (405). However, “The sum of all areas covered by all principal and accessory buildings shall not exceed 25% of the area of the lot,” which could limit an urban farm on a vacant residential lot. However, the regulations do not restrict the number or square footage (only “area”) of accessory buildings. Also, this section requires that a principal building must exist on the site in order for an accessory building to be built or remain.</p> | <p>residential areas where the lot is vacant, urban ag activities could involve the construction of a shed, small greenhouse, hoop house or similar structure if it is the only structure on the lot.</p> |
| Usable Open Space | <p>An unenclosed portion of the ground of a lot which is not devoted to driveways or parking spaces, which is free of structures of any kind, of which not more than 25% is roofed for shelter purposes (i.e., a pavilion) only, the minimum dimension of which is 40 feet and which is available and accessible to all occupants of the building or buildings on said lot for purposes of active or passive outdoor recreation. An accessory building roof space may be substituted for ground space, provided that such space is available and accessible to all said occupants by means of access other than stairs.</p> | <p>JS NEEDS TO CHECK SOMETHING AND ADD THIS RECOMMENDATION.</p> |
| Residential Gardens | <p>The zoning ordinance does not recognize adjacent lots owned by the same property owner as a single lot. (Only in the case of attached dwellings on adjacent lots §405-37, B). Front yard gardens have become visible areas of contention in many cities, which have responded in varying ways. Some permit them everywhere, others prohibit them completely (Sacramento, see Box 3.1). In the middle ground, many cities limit certain types of plantings, for example, Kansas City, MO, forbids row crops for sale on front lawns.² Cleveland, OH does not permit chain link fences in residential districts unless there is an urban agricultural use.³</p> | <p>Add definitions of all allowed agricultural or gardening uses (examples in Appendix B) and make sure they are compatible with any New York State laws, especially Right to Farm legislation. Add zoning lot definition and amend to allow zoning lot as a single lot under zoning.</p> |
| Community Gardens | <p>Although the Common Council passed a resolution in support of community gardens, there is no mention of them in the zoning or other City of Kingston ordinances. Community gardens are not allowed as an accessory use on a lot.</p> | <p>Revise the zoning accordingly, including use definitions, districts, accessory structures, signage, and other necessary zoning and use</p> |

² Chapter 88, Zoning and Development Code, Ordinance No. 100299, Kansas City, MO. <http://cityclerk.kcmo.org/liveweb/Documents/Document.aspx?d=RwO25M6kLBPQAH2KArTCVOTuNiMzKvhpHNtnlPCMYj%2b2FvKs5bOtlbpyVG3TQ5a> (last accessed, January 14, 2014).

³ Ch. 337.02, 337.23, 337.25 adopted in 2010, Cleveland, OH. <http://planning.city.cleveland.oh.us/zoning/pdf/AgricultureOpenspacesSummary.pdf> (last accessed, January 14, 2014).

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| | | requirements. Allow agriculture or gardening as a second use referencing case law (state and federal laws on educational and religious uses in particular). A public input process may be necessary. | | | | | | |
| Hoop Houses | Hoop houses, which consist of curved metal "hoops" covered in plastic, permit the vegetables to grow in winter without an additional heat source. Kingston's zoning isn't clear about this, except that the dimensions. Provided these are built to the dimensions identified in the zoning, they do not require approval by the Planning Board. | See recommendation under Accessory Structures. | | | | | | |
| Zoning Ordinance: Off street parking & loading | <p>The parking and loading requirements do not have specific requirements for agricultural uses.</p> <p>In the residential lots where farming is currently allowed, the zoning only specifies the general standards for on- and off-street parking, loading, screening, and lighting. The zoning has formulas for off-street parking based on ratios (\$405-34, J.). Relevant ratios include:</p> <table border="1"> <tr> <td>Retail sales</td> <td>1 space for each 300 square feet of floor area</td> </tr> <tr> <td>Wholesale, storage and warehousing</td> <td>1 space for each 3,000 square feet of gross floor area or 1 space for each employee on the largest shift, whichever is greater</td> </tr> <tr> <td>Off-street loading facilities</td> <td>1 berth per 5,000 Square Feet of Gross Floor Area, 2 berths per 10,000 SF/GFA, and 1 additional berth per each SF/GFA</td> </tr> </table> | Retail sales | 1 space for each 300 square feet of floor area | Wholesale, storage and warehousing | 1 space for each 3,000 square feet of gross floor area or 1 space for each employee on the largest shift, whichever is greater | Off-street loading facilities | 1 berth per 5,000 Square Feet of Gross Floor Area, 2 berths per 10,000 SF/GFA, and 1 additional berth per each SF/GFA | Define the number of parking and loading spaces needed for the use. In residential areas, determine the number that would not disturb neighbors. This could be done on a case-by-case basis. See the example in Appendix XX, Best Practices section for parking and loading from Minneapolis. |
| Retail sales | 1 space for each 300 square feet of floor area | | | | | | | |
| Wholesale, storage and warehousing | 1 space for each 3,000 square feet of gross floor area or 1 space for each employee on the largest shift, whichever is greater | | | | | | | |
| Off-street loading facilities | 1 berth per 5,000 Square Feet of Gross Floor Area, 2 berths per 10,000 SF/GFA, and 1 additional berth per each SF/GFA | | | | | | | |
| Prescribed Burn/Air Pollution Ordinance | <p>Prescribed or controlled burning is a management tool in rural agriculture and in the conservation of certain natural landscapes. In an urban area, controlled burning could present a nuisance, but is a better alternative than the use of chemicals. New York State Environmental Law permits the on-site burning of agricultural wastes" but only on sites of five acres or more and within a limited timeframe.</p> <p>Chapter 135: Air Pollution and Smoke Control regulates air pollution in Kingston, but makes no mention of open fires or controlled burning typically used as a means of clearing agricultural land. Controlled burn is preferred over chemicals for clearing.</p> <p>New York State Environmental Law Section 215, Open Fires subsection 215.3, "Exceptions and restricted burning" allows "(b) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period" and § 215.3(k), "(k) Individual open fires as approved</p> | Examine whether regulations could be updated to allow controlled burns to clear and/or maintain land | | | | | | |

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| | by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.” | |
| Animals and Fowl Ordinance | The ordinance addresses the keeping of animals and fowl as follows: They are only permitted in Single Family Residential lots of 5-acres or larger sites as noted in § 405-9(b), “Farm buildings devoted to or intended for the housing of livestock, horses, rabbits, hares, guinea pigs, ducks, geese, live poultry or fowls of any kind shall be erected at least 200 feet from any street or property line.” Furthermore, § 151-22, Suitable enclosure required: “No person shall keep any live pig, horse, mule, cow, bull, sheep, goat or any fowl within the City of Kingston outside of a building, enclosed yard or other enclosure suitable for the sanitary confinement of such animal or fowl. Such building, enclosed yard or other enclosure must be equipped with suitable gates, screening, fencing, locks and/or latches so that such animal or fowl cannot escape and run at large.” | This is a “hot button” issue that could thwart the adoption of other important changes to the zoning to facilitate urban agriculture in the short term. The experience of Flint, Michigan – where the need and interest urban agriculture was well-established, demonstrates that policy changes such as this take time and should be preceded by public input. |
| | The ordinance does not address meat and egg production; it does not allow for poultry or domestic fowl on residentially zoned lots, except as noted above. | Many municipalities address this question based on the scale of the operation. For instance, between 2 and 5 chickens is, in several communities, allowed. |
| Market Gardens | Market gardens, the term widely used to mean farms raising produce meant to be sold locally, are referred to as “Truck Gardens” in the Kingston zoning, although “Truck gardens” are not defined in the definitions section. State laws dealing with the “Right-to-Farm” may apply. | Counsel should review the New York State Right-to-Farm legislation and determine if current regulations on market farms comply. Change if need be. |
| Fences Ordinance | The restrictions on fencing are not onerous in Kingston’s zoning. Affordable materials are allowed (e.g., chain link, except in Landmark (L) overlay areas). For urban agriculture, the needs for fencing height and type could exceed the limits in certain districts (e.g., 4 feet in the front and 6.5 feet on the sides in residential areas). Chapter 220, Fences, is a cross-listing of fences in the general code, including Chapter 151, Animals and Chapter 405, Zoning, which regulates materials, height, and placement of fences in various subsections. As fence regulations are dispersed throughout the code, they are difficult to understand and will require updating for agricultural uses. | Temporary fencing should be treated as a separate category and the time periods allowed for temporary fences should incorporate the growing season for garden and agricultural areas. For permanent fences, allow affordable, appropriate materials for gardens and consider height restrictions. Determine whether a fence or landscaping is needed to protect privacy and health of neighbors. This could be done on a case-by-case basis. |
| Weeds | The City has a fine for unmowed front lawns. JSB find reference in ordinances. Not in Zoning. | Exclude food crops from the weeds definition in any weed or nuisance ordinance. |
| Composting | Chapter 350, Solid Waste addresses composting under § 350-12, “Limitations to municipal collection services,” wherein leaves may be composted on residential, commercial and manufacturing properties. The Leave it on the Lawn Kingston | Allow composting. A public education component may be necessary. |

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| | Some provisions of this ordinance could be used to limit composting, an essential activity in organic gardening. | |
| Nuisance Ordinance | Chapter 199, Nuisances: The list of public nuisances enumerated in §199-3 doesn't include any item associated with farming. According to N.Y. AGM. LAW § 308 : NY Code - Section 308: Right to farm - See more at: http://codes.lp.findlaw.com/nycode/AGM/25-AA/308#sthash.jAK5ASnX.dpuf Regarding Nuisances: "Notwithstanding any other provisions of law, on any land in an agricultural district created pursuant to section three hundred three or land used in agricultural production subject to an agricultural assessment pursuant to section three hundred six of this article, an agricultural practice shall not constitute a private nuisance, when an action is brought by a person, provided such agricultural practice constitutes a sound agricultural practice pursuant to an opinion issued upon request by the commissioner." - See more at: http://codes.lp.findlaw.com/nycode/AGM/25-AA/308#sthash.jAK5ASnX.dpuf | Counsel should review the New York State Right-to-Farm legislation and determine if current regulations on market farms comply. Change if need be. |
| Odors | Chapter 405, Zoning, addresses odors as follows: §405-7, Effect of the establishment of districts: G. Prohibition of noxious uses. Regardless of any other provisions of this chapter, any use that is noxious or offensive by reason of emission or odor, dust, noise, vibration, smoke, gas, fumes or radiation or which presents a hazard to public health or safety is prohibited. In the one family residence districts, 405-9: (5) Farms, truck gardens, greenhouses, nurseries and arboretums on lots having an area of at least five acres, including the sale on the premises of produce grown thereon, provided that: (a) Except as hereinafter provided, any farm building, other than dwellings and buildings accessory thereto, and the heating plant of any greenhouse shall be distant at least 75 feet from any street line or property line. (b) Farm buildings devoted to or intended for the housing of livestock, horses, rabbits, hares, guinea pigs, ducks, geese, live poultry or fowls of any kind shall be erected at least 200 feet from any street or property line. (c) No odorous fertilizer shall be stored within a distance of 75 feet of any street or property line. | |

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| | <p>C. Accessory uses shall be limited to the following:</p> <p>(1) Off-street parking in accordance with requirements of § 405-34.</p> <p>(2) Customary home occupations, provided that:</p> <p>(a) No display of goods or waste material therefrom is visible from the street or adjoining properties.</p> <p>(b) Such occupation is incidental to the residential use of the premises and is carried on in the main building by a resident thereof with not more than one assistant who does not reside on the premises.</p> <p>(c) Only customary household appliances and equipment are used.</p> <p>(d) Such occupation is carried on in an area not exceeding 30% of the area of one floor of the main building.</p> <p>(e) No obnoxious odors, noise or vibration emanates therefrom.</p> | |
| Parks Ordinance | <p>This ordinance doesn't address gardening in the parks. The Draft Kingston Recreation Master Plan identifies Cornell Park as "the park is a good candidate site for a community garden and some fruit trees" (page 35).</p> | <p>Community gardens could be construed as a recreational use. If the City wants to allow community gardens in recreational areas, the uses should be explicitly listed and defined.</p> |
| Municipal Water | <p>Municipal water is available to urban agricultural uses, but the water department would likely meter the usage. These costs could be prohibitive to urban farmers.</p> | <p>Allow urban agricultural or gardening uses to hook up to municipal water. This may be a policy change rather than an ordinance amendment.</p> <p>Allow urban agricultural or gardening uses to hook up to municipal water. This may be a policy change rather than an ordinance amendment.</p> <p>STUDY COSTS IN PHASE 2.</p> |
| Solid Waste ("Garbage") | <p>This ordinance would need to be revised to specify how refuse collection at an urban agricultural enterprise would function.</p> | <p>Define containers required and party responsible for pick-up of garbage at urban agricultural or gardening sites in refuse ordinance.</p> <p>ADDITIONAL COMPLEXITIES TO BE ADDRESSED IN PHASE 2. LEAVE AS PLACEHOLDER.</p> |
| Food Processing Waste | <p>Section 350-7, Solid Waste defines Food Processing Waste as follows: "Waste resulting solely from the processing of crops and related food products. Food-processing waste includes, but is not limited to:</p> <p>A. Vegetative residues that are recognizable as part of a plant, fruit or vegetable (e.g. corn husks, cabbage leaves, grape and apple pomace, bean snips and carrot, tomato</p> | <p>PHASE 2. TOO COMPLEX FOR PHASE 1. CAN REMOVE FROM THIS SECTION OR LEAVE AS PLACEHOLDER.</p> |

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| | <p>and potato skins); or</p> <p>B. Any solid, semisolid or liquid food sludge or residue that is non-recognizable, but identifiable by analysis or is certified solely as a by-product of plant, fruit, vegetable or dairy processing (e.g., milk and cheese, whey, brewery and winery waste and by-products from canned, frozen or preserved fruit and vegetable processing operations).”</p> | |
| <p>Peddling and Soliciting</p> | <p>Chapter 318: Peddling and Soliciting addresses all sales licensing. For food, § 318-5, “Application for license; bond and insurance,” requires “.C. If the application is for a license to handle food in any form, the application shall be accompanied by a valid permit issued by the county permit issuing official having jurisdiction, as determined by the Health Department, County of Ulster.” Ulster County’s Administrative Code addresses this under Section 205, “Food Service.”</p> <p>http://ulstercountyny.gov/health/permits-applications</p> | <p>PHASE 2. TOO COMPLEX FOR PHASE 1. CAN REMOVE FROM THIS SECTION OR LEAVE AS PLACEHOLDER.</p> |
| <p>Stormwater District Requirements</p> | <p>(l) In Rondout and Historic Riverfront Districts:</p> <p>Rainfall runoff becomes polluted with oils, greases, organic and inorganic wastes and other potentially harmful substances. It is the intent of the City of Kingston to limit, to the extent feasible, the introduction of these contaminants into the waters surrounding the City. Therefore, new parking areas shall utilize porous pavements or other approved measures to reduce rainfall runoff. New marina projects must incorporate best management practices in their design, including, but not limited to, the following:</p> <p>[1] Maximize pervious land surface and vegetative cover to minimize stormwater runoff and to prevent polluted waters from reaching adjacent waters and wetlands. Direct runoff away from adjacent waters and wetlands to the extent feasible by site grading or other methods.</p> <p>[2] Runoff from parking lot maintenance, fueling and washdown areas must be provided and treated in a manner that prevents oils, grease and detergents from reaching adjacent waters and wetlands. Accepted treatment methods include oil and grease filtering catch basins, retention areas and exfiltration systems.</p> <p>§ 405-40. Landscaping requirements.</p> <p>A. Required landscaping.</p> <p>(1) All portions of improved multifamily and nonresidential properties which are not used for buildings, structures, off-street parking and loading, permitted outdoor storage, driveways, walkways or similar purposes shall be appropriately landscaped with grass, shrubs, trees and other ground cover in such a manner as to minimize erosion and stormwater runoff and to maintain or improve the aesthetics of such development.</p> | <p>PHASE 2. TOO COMPLEX FOR PHASE 1. CAN REMOVE FROM THIS SECTION OR LEAVE AS PLACEHOLDER.</p> |

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| <p>Stormwater Management and Erosion and Sediment Control (General Requirements)</p> | <p>§ 353-9Stormwater credits.</p> <p>The DEC has identified a set of six practices which qualify for stormwater credits. If these practices are implemented as described in the document titled "The Use and Implementation of StormwaterCredits," they can result in a calculated reduction in the water quality treatment volume, and occasionally in the water quantity storage volumes, required for the projects subject to a full SWPPP.</p> <p>A. The six credits are for the following practices:</p> <ol style="list-style-type: none"> (1) Natural area conservation. (2) Stream and wetland buffers. (3) Vegetated open channels. (4) Overland flow filtration to groundwater recharge zones. (5) Environmentally sensitive rural development. (6) Riparian reforestation. <p>B. These practices must be implemented as described in "The Use and Implementation ofStormwater Credits."</p> <p>C. These practices must be reviewed and approved by the City of Kingston before the credits can be taken.</p> <p>D. DEC's procedure for application of these credits is currently evolving. Projects making use of credits may require a sixty-day review by DEC and/or a letter from the City of Kingston certifying that the credit has been applied correctly.</p> <p>E. Applicants should make use of these credits wherever site conditions permit.</p> <p>A.</p> <p>§ 353-7Stormwater pollution prevention plans.</p> <p>Stormwater pollution prevention plan requirement: No application for a land development activity (land disturbance of equal to or greater than one acre) shall be approved until a stormwaterpollution prevention plan, prepared in accordance with this chapter, is submitted to the City Engineer and deemed acceptable, in writing, by the City Engineer, or until the City Engineer has confirmed the activity exempt from this chapter.</p> <p>§ 268-8Activities contaminating stormwater prohibited.</p> <p>A. Activities that are subject to the requirements of this section are those types of activities that:</p> <ol style="list-style-type: none"> 1) Cause or contribute to a violation of the municipality's MS4 SPDES permit. 2) Cause or contribute to the municipality being subject to the special conditions as | |
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| | <p>defined in § 268-4, Definitions, of this chapter.</p> <p>§ 353-11.1 Stormwater runoff reduction. [Added 7-5-2011 by L.L. No. 9-2011, approved 7-27-2011]</p> <p>A. All newly constructed impervious surfaces, including adjacent impacted surfaces, shall be regulated such that stormwater runoff generated by said improvements shall not exceed previously existing conditions. Differential runoff generated as a result of site improvements shall be detained on site by suitable means approved by the Kingston Building Department for a period of not less than 24 hours.</p> <p>B. For differential runoff as a result of the ten-year three-hour storm event from an improved typical City lot (5,000 square feet) with 60% impervious cover amounts to 4,000 gallons, deviations from the baseline improvement shall be regulated on a proportionate basis.</p> <p>C. The following activities are hereby exempt from conformance with § 353-11.1A:</p> <ol style="list-style-type: none"> (1) Existing impervious surfaces; (2) Where physical lot constraints make on-site retention technically infeasible as determined by the City Engineer; (3) New impervious surfaces under 100 square feet already in planning; and (4) Improved gravel driveways. <p>D. New porous pavement shall be provided a fifty-percent impervious surface credit.</p> <p>E. This provision shall be enforced by the City of Kingston Building Safety Division.</p> <p>§ 268-9 Prevention, control and reduction of stormwater pollutants by use of best management practices.</p> <p>A. Best management practices. Where the SMO has identified illicit discharges as defined in § 268-4 or activities contaminating stormwater as defined in § 268-5, the municipality may require implementation of best management practices (BMPs) to control those illicit discharges and activities:</p> <ol style="list-style-type: none"> (1) The owner or operator of a commercial or industrial establishment shall provide, at his or her own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the MS4 through the use of structural and nonstructural BMPs. (2) Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge as defined in § 268-4 or an activity contaminating stormwater as defined in § 268-5, may be required to implement, at said person's expense, additional structural and nonstructural BMPs to reduce or eliminate the source of pollutant(s) to the MS4. (3) Compliance with all terms and conditions of a valid SPDES permit authorizing the | |
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| | <p>discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section.</p> <p>ILLCIT DISCHARGES > Illicit Discharges, Activities and Discharges to MS4</p> <p>§ 353-1 Findings of fact: It is hereby determined that:</p> <p>A. Land development activities and associated increases in site impervious cover often alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, stream channel erosion, or sediment transport and deposition;</p> <p>B. This stormwater runoff contributes to increased quantities of water-borne pollutants, including siltation of aquatic habitat for fish and other desirable species;</p> <p>C. Clearing and grading during construction tends to increase soil erosion and add to the loss of native vegetation necessary for terrestrial and aquatic habitat;</p> <p>D. Improper design and construction of stormwater management practices can increase the velocity of stormwater runoff, thereby increasing stream bank erosion and sedimentation;</p> <p>E. Impervious surfaces allow less water to percolate into the soil, thereby decreasing groundwater recharge and stream base flow;</p> <p>F. Substantial economic losses can result from these adverse impacts on the waters of the municipality;</p> <p>G. Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of stormwater runoff from land development activities;</p> <p>H. The regulation of stormwater runoff discharges from land development activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff is in the public interest and will minimize threats to public health and safety.</p> <p>I. Regulation of land development activities by means of performance standards governing stormwater management and site design will produce development compatible with the natural functions of a particular site or an entire watershed and thereby mitigate the adverse effects of erosion and sedimentation from development.</p> <p>STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL</p> | |
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Appendix B: Recommended Standard Urban Agriculture Zoning Definitions

In the literature review for this study, the following standard definitions were identified. The symbol following the definition denotes the code quoted.

^a Boston Zoning Ordinance, Article 89, section 2

^b Burlington Urban Agriculture Ordinance

Cleveland zoning Code. Title 7, Chapter 336

† Detroit Urban Agriculture Ordinance, Chapter 61.

‡ Seeding the City

“Agricultural structure” – A structure used in conjunction with food production that qualifies for the state’s definition of “agricultural structure” may be exempt from municipal permitting per state law.^b

“Aquaculture” – the cultivation of aquatic animals in a recirculating environment to produce whole fish that are distributed to retailers, restaurants and consumers.^a

“Aquaponics” – the cultivation of fish and plants together in a constructed, re-circulating system utilizing natural bacterial cycles to convert fish wastes to plant nutrients, for distribution to retailers, restaurants and consumers.^a

“Beekeeper” – a person or persons managing and maintaining Honey Bees in a Hive or Hives.

“Chick” – a Chicken under the age of fourteen (14) weeks.^a

“Coldframe” – a temporary, unheated outdoor structure, no higher than thirty-six (36”) inches, used for protecting seedlings and plants from the cold. Coldframes may be erected for up to 6 months during any given calendar year.^a

“Colony” – a natural group of Honey Bees having a queen or queens.^a

“Community garden” – A private, not for profit, or public garden used by a group of households to grow and harvest food crops or non-food crops (e.g., flowers) for personal or group consumption, for donation, or for sale. Community gardens may be principal or accessory uses and may be located on a roof or within a building.^b

“Community Garden” – A privately or publicly owned land used for the cultivation of fruits, vegetables, plants, flowers, or herbs by multiple users. 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 or used by group members. **Comment from this source:** *Community gardens may be cultivated on a wide variety of sites, including underutilized or vacant public or private property, schools, universities, hospitals, or private companies, and as a temporary or permanent use.⁶⁸ Community gardens may be used to fill different needs: a food source or recreation for individuals lacking access to home gardens, community building, education (such as school gardens), or to support an institution’s food services (such as hospital or institutional gardens). This definition is broad enough to encompass all of these types of community gardens. Some communities may wish to expressly include institutional gardens in their definition of community gardens.*‡

“Composting” – a process of accelerated biodegradation and stabilization of organic material under controlled conditions yielding a product which can safely be used as fertilizer.^a

“Coop” – an enclosed shelter in which a Chicken lives.^a

- “Farm Area”** – the area of a Lot designated for activities and uses, as defined in Section 89-2 of this Article, Urban Agriculture.^a
- “Farmers’ Market”** – A market where farmers, producers and other vendors sell whole produce; value-added agricultural products such as jams, jellies, and pickles; prepared food; plants; flowers; meats; dairy products; shellfish and finfish; and other food related products. Preference shall be given to those vendors who have produced what they sell from plants, livestock and other products raised on their farms or harvested from coastal waters.^a
- “Farm Stand”** – A Farm or Agricultural Structure such as a table, stall or tent, operated by a sole vendor for the sale of agricultural or horticultural products.^a
- “Farm Structures”** – Structures that may include but are not limited to sheds (tool and packing), compost bins, shade pavilions, Farm Stands, trellises or other vertical supports for growing crops, and structures used to extend the growing season such as Greenhouses, Hoophouses, Coldframes, and similar structures.^a
- “Garden Center”** – See Greenhouse.
- “Green Infrastructure” (GI)** – A set of approaches and technologies that maintain, restore or mimic the natural flow of water in the landscape.⁴
- “Greenhouse”** – A permanent structure made of glass, plastic, or fiberglass in which plants are cultivated year round under controlled temperature and humidity settings. Garden centers are not greenhouses. Garden centers, which may include a nursery or greenhouse as an accessory use, import most of the items sold, such as plants, potting soil, and garden equipment. Garden centers shall be considered “stores of a generally recognized retail nature” for regulatory purposes.^a †
- “Ground Level Urban Farm”** – The use of a Lot on the ground plane for Urban Agriculture for commercial purposes, whether for profit or non profit.^a
- “Hen”** – A mature egg-laying female Chicken.
- “Hive”** – A manufactured receptacle or container prepared for the use of Honey Bees that includes movable frames, combs and substances deposited into the Hives by Honey Bees.^a
- “Home Garden”** A garden at a single-family or multifamily residence used for food production by the residents of the property, guests of the property owner, or a gardening business hired by the property owner. Home gardens include the front, side, or back yard, rooftop, courtyard, balcony, windowsills, fence, and walls.^b
- “Home Garden”** – The property of a single-family or multifamily residence used for the cultivation of fruits, vegetables, plants, flowers, or herbs by the residents of the property, guests of the property owner, or a gardening business hired by the property owner. **Comment by this source:** *This definition is drafted specifically for residential properties. It is broad enough to include on-site gardens at home daycare sites or board and care homes, without permitting a home gardening business. Few communities place restrictions on the growing of produce in backyards.*‡

⁴ In this project the definition of Green Infrastructure and the standards used for GI practices follow the guidance from the New York State Department of Environmental Conservation (NYSDEC), including the NY State Stormwater Design Manual.

- “Honey Bee”** – A subset of bees in the genus *Apis*, primarily distinguished by the production and storage of honey and the construction of perennial, colonial nests out of wax.^a
- “Hoophouse”** or **“High Tunnel”** – An outdoor structure made of flexible PVC piping or other material covered with translucent plastic, constructed in a “half-round” or “hoop” shape, generally tall enough for a person to enter standing up.^a
- “Hydroponics”** – The propagation of plants using a mechanical system designed to circulate a solution of minerals in water, for distribution to retailers, restaurants and consumers.^a
- “Market Garden”**
- “Open Air Rooftop Farm”** – An unenclosed area of a rooftop that is used for Urban Agriculture for commercial purposes, whether for profit or non profit.^a
- “Orchard”** – The establishment, care, and harvesting of a group of more than ten (10) fruit or nut-bearing trees. The products of an orchard may or may not be for commercial purposes. An orchard is a principal use considered an urban farm.†
- “Peri-Urban Agriculture”** – The production of food on relatively large areas of open land within the city limits.^b
- “Pullet”** – A Hen under the age of one (1) year.^a
- “Rainwater Catchment System”** – A method of catching rainwater runoff from the roof of a structure into rain gutters that channel into a rain barrel, drum, or cistern.†
- “Roof Level Urban Farm”** – The use of a roof for Urban Agriculture for commercial purposes, whether for profit or non profit.^a
- “Rooftop Greenhouse”** – A permanent structure located on a roof made of glass, plastic, or fiberglass in which plants are cultivated year round.^a
- “Run”** – An outdoor enclosure generally made of wire mesh.^a
- “Tree Farm”** – Any parcel of land used to raise or harvest more than ten (10) trees for wood products or Christmas trees, or for transplant, where forest products are sold on site or transported to market. A tree farm as a principal use is considered an urban farm.†
- “Urban agriculture”** – The production of food in a city at a household, community, or commercial scale and can involve a range of activities including the cultivation of plants, keeping animals, and aquaculture. Urban agriculture can address issues as broad as food security, community and economic development, environmental sustainability, and conservation of open space.^b “Urban Agriculture” includes the use of a Lot for the cultivation of food and/or horticultural crops, Composting, Aquaponics, Aquaculture and/or Hydroponics. Such use may include the Accessory Keeping of Animals or Bees where Allowed by Underlying Zoning, and on-site sales where retail uses are Allowed by Underlying Zoning.^a
- “Urban Farm”** – A private, not for profit, or public farm used primarily for a commercial or educational agriculture.^b
- “Urban Farm, Ground Level, Large”** – A Ground Level Urban Farm with a Farm Area greater than one (1) acre that is used for Urban Agriculture for commercial purposes, whether for profit or nonprofit.^a
- “Urban Farm, Ground Level, Medium”** – A Ground Level Urban Farm with a Farm Area greater than or equal to tenthousand and (10,000) square feet but no greater than one (1) acre that is used for Urban Agriculture for commercial purposes, whether for profit or non profit.^a

“Urban Farm, Ground Level, Small” – A Ground Level Urban Farm with a Farm Area less than ten-thousand (10,000) square feet that is used for Urban Agriculture for commercial purposes, whether for profit or non profit.^a

“Urban Farm, Roof Level, Large” – A Roof Level Urban Farm with a Farm Area greater than one (1) acre that is used for Urban Agriculture for commercial purposes, whether for profit or non profit.^a

“Urban Farm, Roof Level, Medium” – A Roof Level Urban Farm with a Farm Area greater than or equal to five-thousand (5,000) square feet but no greater than one (1) acre that is used for Urban Agriculture for commercial purposes, whether for profit or nonprofit.^a

“Urban Farm, Roof Level, Small” – A Roof Level Urban Farm with a Farm Area less than five-thousand (5,000) square feet that is used for Urban Agriculture for commercial purposes, whether for profit or nonprofit.^a

“Urban livestock” – Animals used for food production (including eggs, milk, and meat) in the city.^b

“Vertical Agriculture” – An exterior building wall or other vertical structure designed to support the growing of agricultural or horticultural crops.^a

“Comprehensive Farm Review” – an evaluation by the Urban Design staff of the Boston Redevelopment Authority for the overall design and siting of an Urban Farm and Farm Structures. Activities defined as Urban Agriculture must conform to the Zoning Code, specifically this Article 89, in all other respects, and must be processed and approved by the Inspectional Services Department for the City of Boston.^a

Appendix C: Kingston Resolutions

Kingston Community Gardens Resolution

RESOLUTION # 138 of 2011

RESOLUTION OF THE COMMON COUNCIL OF THE
CITY OF KINGSTON, NEW YORK, RECOMMENDING
SUPPORT FOR COMMUNITY GARDENS

Sponsored by: General Government/Public Safety/Audit Committee
Aldermen Hoffay, Landi, Whitlock, Senor, Clement

WHEREAS, across New York, communities including Kingston are facing high obesity rates that stem from poor eating and lack of exercise; and

WHEREAS, access to healthy, fresh food is often limited, especially in low income areas, including neighborhoods in the City of Kingston; and

WHEREAS, it is a priority for local leaders to promote active living, healthy eating, and overall wellness in their communities; and

WHEREAS, the Common Council of the City of Kingston recognizes that community gardens provide an opportunity for citizens to grow their own healthy food, and for connections to be made between gardens and local farmers, Farmer's Markets, food pantries and schools in order to share resources, expertise and support the local food economy; and

WHEREAS, community gardens have been proven to provide such benefits to the community as: increased property value, beautification of neighborhoods, reduced heat from city streets and parking lots, preservation of open space, recreational and fitness opportunities, community engagement and unification, reduced crime, connection to the outdoors; and

WHEREAS, the Common Council recognizes that the proliferation of community gardens can open up opportunities for grant funding:

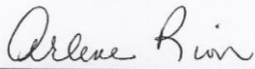
NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF KINGSTON, NEW YORK, AS FOLLOWS:

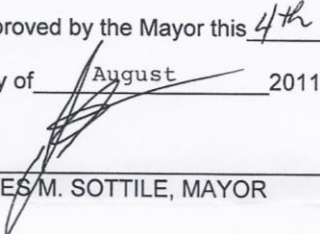
SECTION 1. That the Common Council of the City of Kingston supports the school and Community Garden Committee of the Healthy Kingston For Kids Project for promoting community gardens throughout the City of Kingston.

SECTION 2. That this resolution shall take effect immediately.

Submitted to the Mayor this 3rd
day of August 2011.

Approved by the Mayor this 4th
day of August 2011.


ARLENE RION, CITY CLERK


JAMES M. SOTTILE, MAYOR

Adopted by Council on August 2, 2011
comgardens

Live Well Kingston Resolution

RESOLUTION #162 of 2013

A MEMORIALIZING RESOLUTION OF THE CITY OF KINGSTON, NEW YORK.
IN SUPPORT OF LIVE WELL KINGSTON, A COALITION OF INDIVIDUALS
COMMITTED TO A HEALTHIER KINGSTON

WHEREAS, in Ulster County, New York, communities face high obesity rates, residents suffer from chronic disease, health care expenditures are increasing, and

WHEREAS, New York ranks highest among states for medical expenditures attributable to obesity totaling \$11.1 billion in 2009, and preventing obesity has the potential to save hundreds of millions of dollars annually, and

WHEREAS, County Executive Michael Hein has issued a challenge to Ulster County to become the healthiest county in New York State, and

WHEREAS, in the City of Kingston, New York, leaders seek to improve the lives of its citizens by promoting ways to eat healthy and be physically active and safe, and

WHEREAS, the Common Council of the City of Kingston has supported active living and healthy eating in the past by passing Complete Streets and Community Garden resolutions, and

WHEREAS, the Common Council of the City of Kingston supports the goals of Live Well Kingston, which aims to create a community environment that promotes and supports healthier lifestyle choices and fosters active living and healthy eating, and

WHEREAS, citizens, organizations, government entities, and businesses of the City of Kingston can create a healthy community by promoting policy, environmental, and systems changes that support people to make healthier choices, and

WHEREAS, citizens, organizations, government entities and businesses of the City of Kingston can create a healthy community by championing and participating in wellness programs that promote healthy eating as well as safe and active living, which will reduce health care costs, and

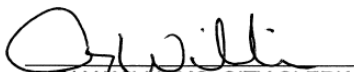
WHEREAS, the Mayor's Wellness Campaign strives to adopt a comprehensive program of outreach and education aimed at fighting unhealthy lifestyles, reversing the obesity trend, and preventing instances of cardiovascular and chronic disease for the City of Kingston.

NOW THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF KINGSTON, NEW YORK, AS FOLLOWS:

Section 1: That the Common Council of the City of Kingston, New York, ask all residents of this city to join us in support of the creation of the Live Well Kingston Coalition, and be it further

Section 2: That we encourage citizens of the City of Kingston to participate in the activities of the Live Well Kingston, which promotes active streets and parks, better access to healthy foods, eating well, being safe, and overall active and healthy living in order to create a better quality of life for all residents.

Submitted to the Mayor this 11th
day of September, 2013


CARLY WILLIAMS, CITY CLERK

Approved by the Mayor this 12th
day of September, 2013


SHAYNE R. GALLO, MAYOR

APPENDIX D: Typical Urban Agriculture Yields

Source: Urban Design Lab (2012) *The Potential for Urban Agriculture in New York City: Growing Capacity, Food Security, & Green Infrastructure*. New York, NY: Columbia University.

| | Food Group | USDA / Conventional Average Yields (lbs./s.f.) | “Bio-intensive Low” Average Yields (lbs./s.f.) | Estimated NYC annual retail (x 1,000,000 lbs.) | Estimated Land area needed for cultivation: USDA / Conventional Average Yields (acres)* | Estimated Land area needed for cultivation: “Bio- intensive Low” Average Yields (acres)* |
|-------------------|--|---|---|--|--|---|
| Vegetables | Dark Green broccoli, collard greens, esca- role, kale, lettuce (leaf), mustard greens, spinach, turnip greens | 0.49 | 0.95 | 210 | 10,983 | 8,671 |
| | Orange carrots, pumpkin, squash, sweet potatoes | 0.43 | 0.70 | 193 | 10,321 | 6,323 |
| | Dry Beans & Peas dry edible beans, dry peas and lentils, lima beans | 0.03 | 0.07 | 62 | 46,804 | 34,490 |
| | Starchy green peas, potatoes, sweet corn | 0.35 | 0.47 | 731 | 35,672 | 33,525 |
| | Other Artichokes, asparagus, bell peppers, brussel sprouts, cabbage, cauliflower, celery, cucumbers, eggplant, garlic, lettuce (head), okra, onions, radishes, snap beans, tomatoes, misc. vegetables | 0.60 | 0.83 | 1,120 | 56,140 | 32,406 |
| Fruit | Tree Fruit Apples, cherries, figs, peaches, pears, plums | 0.28 | 0.32 | 470 | 27,132 | 24,311 |
| | Grapes | 0.20 | 0.45 | 102 | 11,761 | 5,227 |
| | Berries Blackberries, blueberries, cranberries, raspberries, strawberries | 0.20 | 0.23 | 94 | 25,940 | 7,635 |
| | Melons Cantaloupe, honeydew, watermelon | 0.52 | 0.50 | 208 | 9,462 | 9,551 |
| | Warm weather / Citrus Apricots, avocados, bananas, dates, grapefruit, kiwi, lemons, limes, mangoes, olives, oranges, papaya, pineapple, tangerines | N/A | N/A | 886 | N/A | N/A |
| Total | | | 4,076 | 232,215 | 162,139 | |

* The figures in the “total acres” column are derived by multiplying yields and estimated consumption separately for each fruit and vegetable listed (not the averages), and therefore does not correspond to the average figures. See **Appendix 1: Methodology** for data sources and more information.