

REDEVELOPMENT AUTHORITY OF THE CITY OF PHILADELPHIA: LAND USE AND POLICY STUDY

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EXECUTIVE SUMMARY

Interest in urban agriculture has exploded in recent times because the practice is at the confluence of a number of pressing issues, from stormwater management and open space provision to childhood obesity and neighborhood stabilization. These issues are of particular interest in Philadelphia, and so a variety of groups have a natural interest in the success of urban agriculture within the City. Urban agriculture also logically intersects with a number of important initiatives and objectives of the Nutter Administration. Urban agriculture is diverse in its intended objectives, and thus in the ways in which it is practiced in Philadelphia and in other cities (see Figure ES.1).

Figure ES.1
Urban Agriculture’s Intended Objectives, and Lessons Learned
from Its Application in Philadelphia and Other Cities

Intended Objectives	The Landscape in Philadelphia	Characteristics of Other Cities
Access to healthy food	Urban agriculture on large sites is on the fringe of the City where densities are low and parkland is abundant, while there are hundreds of community gardens on much smaller plots in dense neighborhoods.	Urban agriculture is primarily a neighborhood greening strategy.
Economic development		Garden leases and zoning codes represent two mechanisms by which terms can be established.
Environmental remediation		Urban agriculture networks have been established in several cities.
Neighborhood greening		Compromise is needed to satisfy a diversity of stakeholders.
Community building		In weak markets, the benefit is about public amenities and not revenue generation.
	Local food non-profits that facilitate consumer access are also important actors in Philadelphia, with particular attention to responding to concerns about “food deserts.”	Ideal sites for urban farming depend on a variety of criteria.

Source: Econsult Corporation (2009)

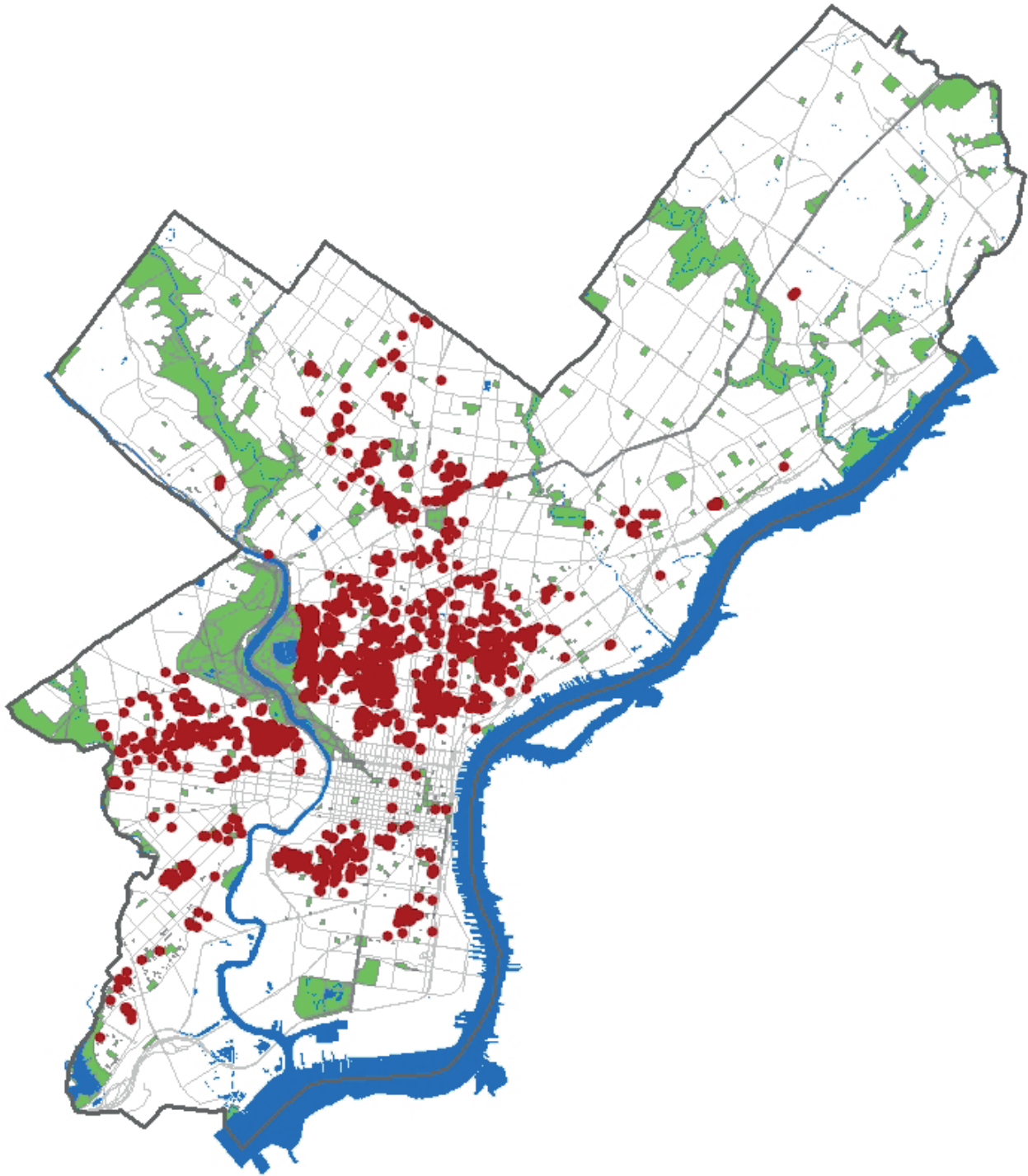
Because the Philadelphia Redevelopment Authority (RDA) is a major landholder in the City, it too has an interest in the topic of urban agriculture. Some RDA parcels are already being used for urban farming and community gardening, and there is demand for additional such use of RDA parcels. Tasked with the development of balanced, mixed-use communities, the RDA is examining policies and frameworks that can respond to desires for urban agriculture but that are flexible enough to enable the RDA to adapt to changes as the best uses for parcels evolve over time.

The RDA currently controls about 2,500 parcels of vacant land within the City (see Figure ES.2). They are dispersed throughout the City, but, by number, are disproportionately in low-income neighborhoods: 75 percent are located in North and West Philadelphia, while 77 percent are in Census tracts with median household incomes of less than \$25,000. The vast majority of RDA parcels are near other open space: 91 percent are less than 1/5 mile from a park. Forty-seven percent of RDA parcels are within a 1/2-mile of a grocery store, while 27 percent are within a mile of an urban farm.

It is important for localities that land is developed at its highest and best use because property tax revenues represent a significant portion of funding for important public goods such as schools. This suggests that, all things being equal, parcels with the lowest values are more easily allocated to urban agriculture, because the opportunity cost of not allowing other uses is low, whereas parcels with the highest values are less easily allocated to urban agriculture, because the opportunity cost of not allowing other uses is high.

However, localities must also be mindful that not all parcels can or should be developed; parks, for example, do not directly generate property tax revenues, but are still justified for the enhancing effect they on local quality of life (and on the value of parcels that do generate property tax revenues). Urban agriculture can also be justified on high-value parcels for non-financial reasons, if the social or environmental benefits of urban agriculture on such sites are deemed sufficient to warrant not developing them for higher uses.

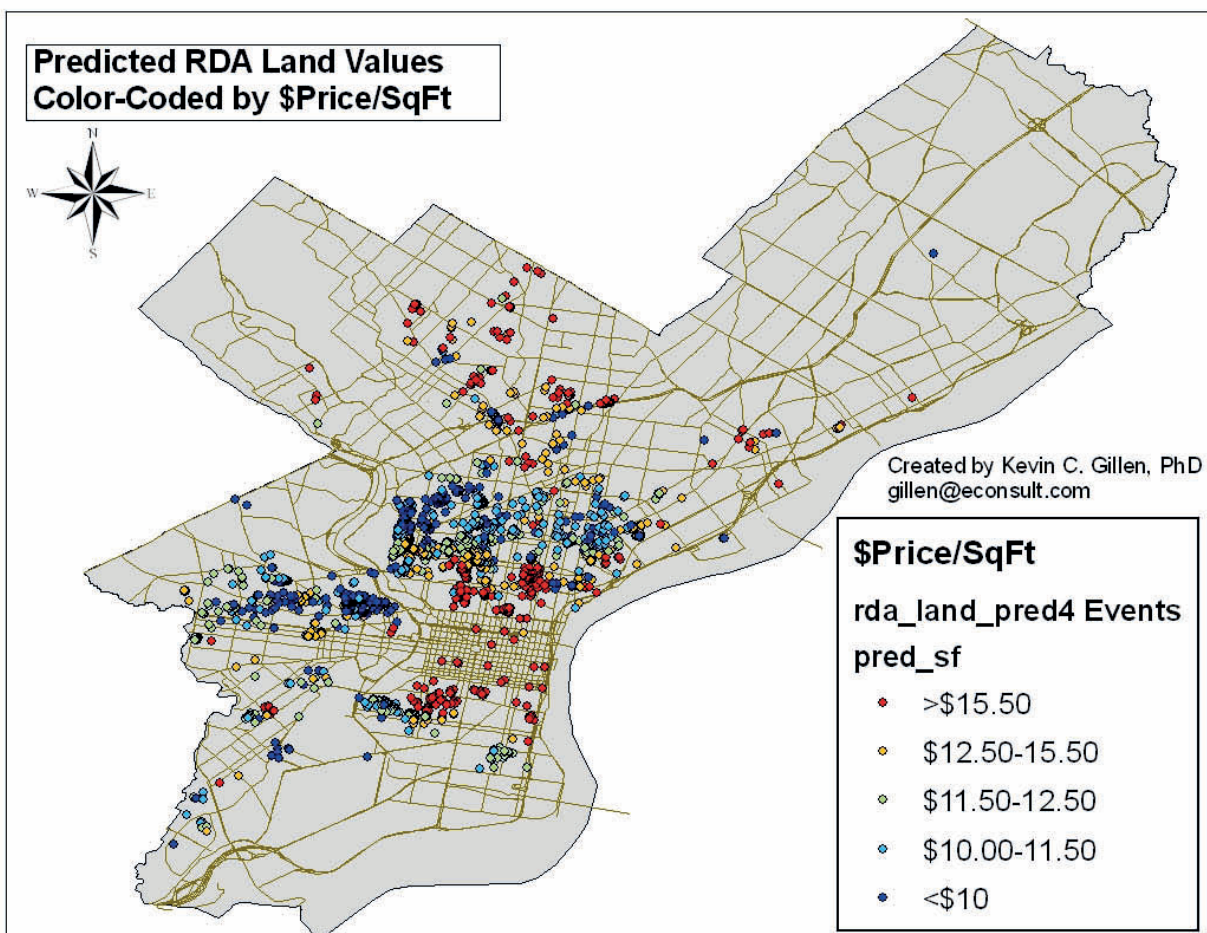
Figure ES.2
Location of RDA-Controlled Parcels
(Most are Located in North and West Philadelphia)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

Using a hedonic pricing model, land values for RDA parcels were estimated based on land sales throughout the City (see Figure ES.3). The aggregate value of the RDA's 2,500 vacant land holdings, spanning 130 acres, is estimated to be \$116 million, with the top 10 percent by value comprising 72 percent of that aggregate value. Fifty-nine percent of parcels have prices per square foot of less than \$12.50, or \$27,000 for a 1/20th-acre lot, the size of a typical row house lot. Most RDA parcels are very small: parcels that are 1/20-acre or smaller represent 89 percent of all RDA sites, as well as 86 percent of RDA sites that are valued at \$12.50 per square foot or less (see Figure ES.4). In fact, there are only 12 RDA sites that are larger than one acre. The relatively modest valuations of RDA properties implies that they are not in high demand for immediate development and thus are candidates for temporary urban agriculture uses until the demand for more intense, higher value use of the parcels arises.

Figure ES.3
Predicted Land Price per Square Foot for RDA-Controlled Parcels as of December 2009,
Based on Hedonic Analysis of Single-Family Home Sales in Philadelphia, 2008 to Q1 2010



Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

Figure ES.4
Distribution of Predicted Land Price per Square Foot for RDA-Controlled Parcels, by Lot Size
(59 Percent are Estimated to Have a Market Value of Less Than \$12.50 per Square Foot,
and of Those Parcels, 86 Percent are 1/20th-Acre or Less)

	<1/40 acre	1/40-1/20 acre	1/20-1/10 acre	1/10-1/2 acre	1/2-3 acre	Grand Total
\$0-\$10/SF	9.1% 6.8	% 1.9	% 2.7	% 1.0	%	21.5%
\$10-\$11.5/SF	9.8% 5.4	% 1.0	% 0.8	% 0.1	%	17.1%
\$11.5-\$12.5/SF	12.0%	7.0% 0.5	% 0.4	% 0.0	%	19.9%
\$12.5-\$15.5/SF	9.8% 9.2	% 0.6	% 0.3	% 0.0	%	19.9%
\$15.5-\$275/SF	11.2%	8.3% 0.8	% 0.9	% 0.2	%	21.4%
Grand Total	52.0%	36.8%	4.8% 5.1	% 1.4	%	100.0%

Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

Based on this valuation of RDA parcels, we have developed a series of recommendations for the RDA's consideration (see Figure ES.5):

- The RDA, in concert with other City agencies or non-profit entities, should determine whether some RDA parcels warrant being allocated for permanent urban agriculture.
- To the degree it has funding to cover oversight costs, it is appropriate for the RDA to pursue temporary urban agriculture arrangements on its low-value parcels, regardless of whether it represents the final highest and best use of those parcels, when agricultural uses increase the value of those parcels and of neighboring parcels.
- The RDA should offer as much choice as possible to the marketplace of prospective urban agriculture operators by making available for temporary urban agriculture all parcels it does not anticipate that it will need for alternative use within the next 18 months, and accept as many qualified candidates as it has organizational bandwidth to oversee.
- Excluding high-value parcels, parcels that may be rezoned, or parcels for which the RDA has received inquiries, the RDA should determine the lease price, time commitment, and terms of use to for all parcels that it is willing to allow urban agriculture.
- When the lease term is up, one of five outcomes can occur: 1) renew the lease with the same operator, 2) enter into a new lease with a new operator, 3) prepare the site for imminent sale, 4) sell the site, or 5) sell the site but carve out an easement on some or all of the site. These "exit" strategies should be discussed at the commencement of each lease term, as well as during annual check-in sessions, so that there is no confusion on the part of the operator as to what the

possibilities are at the end of the lease term or as to how the RDA will determine which direction to go at that point.

- The RDA should consider the use of a formula to compensate the user for his or her role in maintaining and improving the site such that it can now be sold to a private developer.
- While the RDA's organizational focus should remain on economic development and land use, with urban agriculture strategically deployed as an interim use to stabilize neighborhoods, the urban agriculture activities themselves merit some specific attention. Making the vast majority of its parcel inventory available for temporary urban agriculture will potentially yield a variety of users and uses, and the RDA can, in concert with other public agencies and non-profit entities, monitor "best practices" that emerge from this network of sites.
- The RDA's burgeoning relationship with the US D epartment of Agriculture presents an opportunity to fund and explore such a role for such a purpose to gether with other city agencies. Sites can be provisioned for USDA cooperative efforts so as to underwrite oversight costs and maximize the dissemination of best practices in urban agriculture and particularly the distributed but connected nature of a network of urban agriculture sites.

Figure ES.5 Overall Recommendations to the RDA

1. Determine whether some RDA parcels warrant being transitioned over to other City agencies or non-profit entities for permanent urban agriculture.
2. Focus the RDA's urban agriculture efforts on temporary arrangements, and establish a framework for matching parcels, users, and uses.
3. Set the performance terms for temporary urban agriculture users on RDA land.
4. Set the lease price and time frame for each RDA parcel for temporary urban agriculture use, and otherwise allow all parcels to be available to be bid on. Note that lease price might be zero.
5. Manage the Request for Proposal (RFP) process so as to be as flexible and strategic as possible.
6. Establish the potential "exit strategy" options that are available upon the conclusion of a lease term.
7. Develop an informational document that expresses the RDA's position on urban agriculture and on how the RFP process will proceed.
8. Provision sites for USDA cooperative efforts to establish model projects in Philadelphia.

Source: Econsult Corporation / Penn Institute for Urban Research (2010)

1.0 INTRODUCTION

1.1 Urban Agriculture in the Spotlight

The subject of agricultural production is discussed very early in most urban economics textbooks, because it is a core notion that cities develop when agricultural activity has become productive enough and transportation systems are efficient enough that not everyone has to farm for his or her own food. Thus, cities allow people to specialize in a variety of trades generating sufficient income to buy the food they need. As economies evolve and cities form, agriculture is relegated to rural areas, since it is typically a land-intensive use and land is a scarce resource in cities.¹

Nevertheless, interest in urban agriculture has exploded in recent times. Universities and cities convene symposia on the subject. Practitioners have formed an energetic grassroots movement with its own associations, publications, and gatherings. Even Michelle Obama, First Lady of the United States, is a practitioner of urban agriculture, keeping a 1/40-acre edible garden on the South Lawn of the White House.²

Why this newfound interest in devoting urban space for agriculture? Proponents see urban agriculture as the confluence of a number of pressing issues. Researchers have argued that urban farms and community gardens can stabilize distressed neighborhoods, provide green oases, and build social capital. Urban agriculture has also been used to address inequities in fresh food access, combat childhood obesity, and teach life skills. The presence of urban farms and community gardens in cities may also help provide clean air, manage storm water run-off, and militate against urban heat islands. Producing food locally may reduce “food miles traveled,” result in higher-quality food, and better connect food producers with food consumers. Finally, as enterprises, urban farms may be useful contributors to a city’s economic development efforts by encouraging local entrepreneurship, creating jobs, and stimulating local commerce.

These merits are of particular interest to a city like Philadelphia. It faces many of the social and economic challenges that urban agriculture may help remediate. It also boasts a diversity of underused land such as the thousands of potentially farmable vacant lots in blighted neighborhoods and remarkable urban farming examples such as Greensgrow Farms in Kensington, and the W.B. Saul High School of Agricultural Sciences, the largest agricultural high school in the nation.

There are a variety of groups in Philadelphia that have a natural interest in the success of urban agriculture within the City. Prominent within the City’s for-profit sector are a world-class restaurant scene, including restaurants that cater to the growing interest in locally sourced foods, as well as the Philadelphia Regional

¹ From the very first page of Edwin Mills’ classic textbook, “Urban Economics”: “From earliest times onward, the city has been the home of specialists – in particular, specialists in nonagricultural activities. Dating from these earliest times, these specialists could not survive without the produce of the land, so the first prerequisite for a city was the presence of an agricultural sector which produced a surplus – more than enough food to sustain itself. Second, urban dwellers had to induce farmers to part with their surplus – either by exchange or by force.” “Urban Economics,” Edwin Mills (1974).

² “Michelle Obama’s Harvest,” Philadelphia Inquirer (January 15, 2010).

Produce Market, which serves as a major distribution hub for much of the East Coast. Meanwhile, the City's non-profit sector is particularly well-represented on this topic, from the Pennsylvania Horticultural Society's (PHS) expanding City Harvest program, the White Dog Café's Fair Food project, and food access advocates such as the Food Trust and Farm to City. Finally, the City's many academic institutions have taken on the subject through commitments to buy local foods for student cafeterias (the University of Pennsylvania now spends almost 20 per cent of its \$6.7 million food budget on local fruits, vegetables, and dairy products³) and new fields of interdisciplinary study that prepare students to add value locally to this subject (such as many urban farming initiatives that have been taken up by Masters of Industrial Design students at the University of the Arts).

1.2 Urban Agriculture and the Nutter Administration

In addition to the potential linkages between urban agriculture and the for-profit, non-profit, and academic sectors, urban agriculture naturally intersects with a number of important initiatives and objectives of the Nutter Administration. The Mayor's Greenworks Philadelphia Sustainability Plan includes goals for urban farms. The newly combined Department of Parks and Recreation has been tasked with taking a leadership role in creating and maintaining new open space within the City. The City Planning Commission's efforts to reform its zoning code, draft a new comprehensive plan, and develop neighborhood plans also touch the topic of urban agriculture. The Philadelphia Water Department's (PWD) ambitious stormwater management initiative involves the promotion of strategically located green spaces throughout the City, of which urban agriculture may be one type of use.

Because the Philadelphia Redevelopment Authority (RDA) is a major landholder in the City, it too has an interest in the topic of urban agriculture. Some RDA parcels are already being used for urban farming or community gardening, and there is demand for additional such use of RDA parcels. Tasked with the development of balanced, mixed-use communities, the RDA seeks to develop policies concerning how to allocate its land to the best uses, which may include urban agriculture. In 2008, the RDA issued a Request for Qualifications (RFQ), seeking above-ground urban agriculture models that could cultivate RDA land, generate positive economic impacts, and be considered for replication throughout the City. In 2009, the RDA signed an agreement with the US Department of Agriculture's (USDA) Agricultural Research Service to determine the extent to which sustainable production methods could be applied in urban settings.

As these two initiatives advance – pilot projects emerging from the RDA's RFQ were evaluated in December 2008, and the RDA continues to cultivate its relationship with the USDA – the RDA seeks to better understand how it can best achieve its economic development goals, while responding to citywide urban agriculture initiatives and demands to use RDA land for agricultural and greening purposes. Rather than react to requests and opportunities, the RDA is examining policies and frameworks that can respond to desires for urban agriculture but that are flexible enough to enable the RDA to adapt to changes as the best uses for parcels evolve over time. While it is not possible to know what the future

³ "Sustainable Feast at the College Dining Hall," Philadelphia Inquirer (November 25, 2009).

will hold for various trends and parcels, this analysis is intended to provide the RDA with guidance in systematically fulfilling its role as one of the City's primary stewards of publicly owned land.

1.3 Scope of Work

To assist in this effort, the RDA engaged Susan Wachter of the Penn Institute of Urban Research, as well as Econsult Corporation and Fairmount Capital Advisors (collectively, the Team), to conduct a study of urban agriculture and land use policy. Such an engagement required a number of primary and secondary research efforts: interviewing practitioners and policy makers in Philadelphia as well as in other, similar cities; conducting a brief literature review of urban agriculture in theory and practice; and performing a variety of spatial analyses and econometric techniques on parcel data provided by the RDA.⁴ In the resulting report, the Team focused on the research and policy needs of the RDA in its connection to urban agriculture.

This report addresses the following scope of work:

- *Context (Section 2)* – Providing a definition of urban agriculture; articulating the intended benefits that its advocates seek to promote; and elaborating on the policy and programmatic implications of those potential benefits.
- *Experience (Section 3)* – Briefly summarizing how urban agriculture initiatives have played out in Philadelphia; answering some key questions about how it is advanced in other cities; and depicting the spatial and economic distribution of both existing urban agriculture efforts as well as available vacant land controlled by RDA.
- *Implications (Section 4)* – Exploring some of the trade-offs inherent to urban agriculture policy and programming (i.e. costs versus benefits, and who bears those costs and enjoys those benefits), and some of the challenges involved in developing a framework for evaluating and prioritizing individual sites for urban agriculture.
- *Recommendations (Section 5)* – Making some specific recommendations to the RDA about what processes and policies it should put in place to advance its economic development objectives through urban agriculture.

As noted above, urban agriculture intersects with a number of parallel initiatives taking place within the City: a rewrite of the City's zoning code, the drafting of a comprehensive plan, the Greenworks Philadelphia document, and an ambitious stormwater management initiative by PWD. This confluence of once-in-a-generation actions makes this a particularly auspicious moment for the City; and to the extent that the RDA can move towards an effective policy towards urban agriculture on vacant lots, and towards working relationships with similarly purposed City agencies and private entities, it can help the City make the most of that moment.

⁴ See Appendix A for a full bibliography of primary and secondary sources.

2.0 CONTEXT

2.1 Working Definition

It is important, before even presenting the present landscape of urban agriculture in Philadelphia and elsewhere, to provide some context to the subject. In particular, a working definition of urban agriculture is needed, intended benefits articulated, and policy and programmatic implications explored at an initial and theoretical level. This will provide the necessary framework to understand actual initiatives and efforts that are taking place, and evaluate the extent to which an urban agriculture and land use policy approach can be developed.

To begin with, it is telling that concepts such as “urban farm” and “community garden” are not quite so easy to circumscribe. There does not appear to be universal consensus as to whether the terms differ in terms of scale, actors, or objectives. To many but not all practitioners, an urban farm connotes a more commercial enterprise, usually undertaken by one person or entity, and necessarily involving some sense of scale,⁵ given its commercial nature. Meanwhile, a community garden represents a more informal effort, undertaken by groups of people or entities sharing a common space, which tend to be smaller in scale and therefore are more likely to be located within neighborhoods rather than at a city’s fringes.

These are by no means rigid distinctions: urban farms can and do pursue non-financial objectives, and community gardens can and do produce food for sale. However, this is an acceptable loose dichotomy for the time being, with the broader term, “urban agriculture,” taken in this space to represent both forms of activity, and to encompass a full range of functions, from cultivation and harvest to processing and distribution.

2.2 Intended Objectives

Important to the definition of urban agriculture is not just what it represents but what objectives it is pursuing. Advocates cite an impressive mix of potential economic, environmental, social, and communal benefits. These sought-after benefits may fit into objectives that are of particular interest to and resonance with the Nutter Administration (see Figure 2.1):⁶

⁵ Here we are speaking relatively: even the largest of urban farms, while they may dwarf the typically-sized community garden, are much smaller than non-urban farms.

⁶ See Appendix B for a list of intended objectives of urban agriculture, developed from a similar table included in “Cultivating the Commons: An Assessment of the Potential for Urban Agriculture on Oakland’s Public Land,” University of California at Berkeley (October 2009).

Figure 2.1
Potential Resonance between Urban Agriculture and Mayoral Priorities
(Natural Intersections with a Number of Priority Objectives)

- *Access to healthy food.* Food security issues and the rising challenge of childhood obesity may be addressed by strategically localizing food production to combat “food deserts” within the City.
- *Economic development.* Urban agriculture may represent a new and growing source of business formation, job creation, and skills training for under-served populations within the City.
- *Environmental remediation.* Urban farms and community gardens can play some role in managing stormwater run-off, cleaning the air, and mitigating against the urban heat island effect.
- *Neighborhood greening.* Urban farms and community gardens, if strategically located, can be part of a citywide open space network, providing green infrastructure throughout the City.
- *Community building.* From a place and activity standpoint, urban agriculture can stabilize blighted blocks, connect people, and engage them at the neighborhood level.

Source: Econsult Corporation (2009)

2.3 Public Sector Participation in Urban Agriculture

There is a rationale for government involvement in regulating and assisting urban farming and community gardening efforts. Different forms of urban agriculture may impose on their surrounding environments which economists call “externalities,” or positive or negative impacts that are not fully captured by the originating actor. Governments may choose to respond to these externalities by regulating for or against certain uses, or by providing incentives or disincentives to increase or decrease the amount of certain uses.⁷

⁷ From a positive standpoint, an urban farm or community garden may be physically beautiful, resulting in positive impacts for its immediate neighborhood. From a negative standpoint, an urban farm or community garden may generate unpleasant sounds or smells, resulting in negative impacts for its immediate neighborhood. Because the originating actors who initiate and maintain the site are not themselves reaping the spillover benefits, there may be fewer such sites than is socially optimal. Similarly, because the originating actors who initiate and maintain the site are not themselves bearing the spillover costs, there may be more such sites than is socially optimal.

Governments can mitigate against these inefficiencies by either stating allowed and disallowed uses (for example, they may prohibit farms located in residential neighborhoods from operating heavy machinery) or by providing incentives or disincentives

Urban agriculture's projected economic and social benefits may or may not align with a specific government's own economic and social agendas, such that urban agriculture becomes another tool to use to fulfill its agenda. If a government is already trying to do or support efforts associated with food access, job training, business formation, environmental remediation, neighborhood stabilization, or social capital building, for example, urban agriculture initiatives may be seen as contributing to such objectives, and thus government support may be justified.

A government's role in supporting urban agriculture needs to be properly vetted because there are likely tradeoffs among alternative uses of urban land. Compared to land typically used for agriculture, urban land is usually more likely to have other, competing uses, and therefore the opportunity cost of reserving a parcel for agriculture may be high. Much of the purpose of this report is to investigate what is currently taking place in Philadelphia and in other cities, and what opportunities there are to balance urban agriculture and other objectives. The next two sections fill out that exploration, beginning with Section 3, which delineates what is taking place in Philadelphia and other cities. Finally, Section 4 takes into consideration the RDA's mission as an economic development and land use entity that works in conjunction with the City to stabilize, revitalize, and develop neighborhoods to evaluate urban agricultural policies consistent with that mission.

to encourage or discourage certain behaviors (for example, they may provide tax breaks, subsidized land, or free technical assistance). In making these determinations, benefits and costs of urban agriculture must be weighed against the costs and benefits of other uses.

3.0 EXPERIENCE

Now we move from urban agriculture in concept to the urban agriculture experiences of other cities and in Philadelphia. We start with a look at what urban agriculture looks like in other cities, before turning to the many and diverse initiatives taking place in Philadelphia, and to the ways in which various entities within the Administration intersect with this work. We then move from a programmatic and policy perspective to consider the spatial and other descriptive characteristics of urban agriculture in Philadelphia: where is urban agriculture taking place, where does the Philadelphia Redevelopment Authority (RDA) currently control sites, and where are these locations in relation to other green space, other food access choices, and neighborhoods.

3.1 Urban Agriculture in Other Cities

While every city and region is unique in its governance, geographic characteristics, and comparative advantages and disadvantages, it is instructive to consider how urban agriculture has evolved in other parts of the country, and how jurisdictions have attempted to react. An exhaustive review of urban agriculture efforts around the world could not be accomplished within the scope of this report, so instead, attention was given to cities and regions whose contexts held promise for offering useful comparisons to Philadelphia, and to aspects of urban agriculture policy that were most relevant to Philadelphia's present context.⁸

Some important themes and ideas emerged from such a review, which are articulated here in advance of further exploration of issues in (Section 4) and recommendations for (Section 5) Philadelphia:

- *Urban agriculture is seen primarily as a neighborhood and greening strategy, not as a major food production source.* It is accepted in the other cities we examined that the land-constrained nature of urban agriculture does not lend itself to food production being the primary thrust of an urban agriculture initiative. Rather, these cities treated urban agriculture or community gardens as a mechanism by which neighborhoods could be beautified, residents engaged, and pockets of green space provided.⁹
- *Garden leases and zoning codes represent two mechanisms by which terms can be established and expectations set.* The City of Milwaukee enters into three-year leases with non-profit organizations on Redevelopment Authority land. Non-profit lessees can then sub-let the land for urban agriculture, with allowed and disallowed uses delineated and maintenance responsibilities

⁸ Only one non-US city, London, was seriously studied for this engagement. Though urban farming takes place in many cities in developing countries, these examples do not hold much relevance to Philadelphia, because of the drastic differences in the sophistication and stability of overall economic structures as well as food and transportation systems. Other cities whose policies and programs were reviewed included Baltimore, Chicago, Cleveland, Flint (and Genesee County, Michigan), Milwaukee, New York City, and Seattle.

⁹ See, for example, "Chicago: Eat Local, Live Healthy," City of Chicago Department of Planning and Development (June 21, 2007).

stated.¹⁰ A similar arrangement is made available to individual urban agriculture practitioners through the P-Patch Community Garden Program of the City of Seattle's Department of Neighborhoods. The City of Cleveland has created an Urban Garden District as part of its zoning code, which specifies permitted uses and provides guidance on structure restrictions. Importantly, these districts enable both production and sale of crops on-site.¹¹

- *Networks to help facilitate community gardens and urban farming have been established in several cities.* For example, the City of Seattle's P-Patch Program serves as the City's matchmaker and facilitator of urban agriculture, liaising with community groups, stewarding a portion of park land cared for through an additional tax approved by residents, and inviting individuals to connect to the broader network of community gardens it supports throughout the City. This has proven to be an effective mechanism for technical assistance to be dispensed, and for urban agriculture activity to be aggregated across a multitude of smaller, disparate sites.¹²
- *Planning ahead is useful to facilitate the role of all parties, public, nonprofit and citizens, and compromise is needed to satisfy a diversity of stakeholders.* The cities we examined tend to specify lease length or determine that the land has no alternate use (Flint) or essentially permanently dedicate the land to urban farming or community gardening (Seattle). As a contrary example in New York City, 2002 marked the end of a protracted dispute between NYC and hundreds of urban agriculture advocates over the threat of converting community gardens into low-income housing. In the 1970's and 1980's, permission had been granted to community groups to tend to the City's many vacant lots; by the 1990's, development pressures led then-Mayor Rudolph Giuliani to want to convert those community gardens back into developable land. Mayor Michael Bloomberg struck a conciliatory arrangement, keeping 200 gardens to be owned and operated by the City, offering another 200 gardens to the Parks Department for free or else to non-profit groups willing to pay a nominal fee and raise any money needed for ongoing maintenance and capital investment, and transitioning 150 parcels for private development of low-income housing.
- *Uneven soil conditions in urban settings mean increased but not necessarily exclusive reliance on above-ground methods.* Good soil can be scarce in cities, due to the physical and chemical after-effects of various developments. In some cases, raised beds are encouraged even if soil safety is unknown, since testing imposes costs. Milwaukee permits in-ground plantings only for non-edible

¹⁰ Milwaukee is an example of a big city that appreciates the usefulness of making both permanent and temporary sites available for urban agriculture, deeding permanent sites over to non-profit groups in some cases, and retaining ownership but making land available through leases in other cases.

¹¹ See Appendix C for a sample lease agreement that is used in the City of Milwaukee, Appendix D for a sample lease agreement that is used in the City of Seattle, and Appendix E for the part of the City of Cleveland's zoning code that accounts for Urban Garden Districts. Useful precedents are highlighted for ease of reference.

Notably, the City of Milwaukee's temporary urban agriculture model involves leasing parcels to Milwaukee Urban Gardens, a non-profit organization, which then sub-leases space to individuals and groups interested in operating urban agriculture sites. Under such an arrangement, it is Milwaukee Urban Gardens and not the City of Milwaukee that does most of the selecting and monitoring of users. In the case of the City of Seattle, the P-Patch Community Garden Program within the City's Department of Neighborhoods plays this liaising and technical assistance role.

¹² See also "The Diggable City: Making Urban Agriculture a Planning Priority," Portland State University (June 20 05), in which urban agriculture is recommended as a priority activity for environmental, health, and social purposes.

items; food crops require raised beds whose characteristics are circumscribed in the lease agreement. Seattle endeavors to encourage both forms of agriculture, providing elevated raised beds for elderly participants to use without having to bend over, and soil testing to determine whether in-ground uses can be pursued.

- *Even strong markets have weak areas.* Real estate in the City of London is some of the most expensive in the world, and yet there are portions of the City in which development is not foreseen for the time being. Capital Growth, which is supported by a grant from the London Development Agency, leases some of these spaces on a temporary basis for food production. Although the program is too young to have had to deal with any transitions from gardening to development, it intends to measure the usefulness of a particular site by amount of food grown as well as other measurable impacts such as property value enhancement, environmental remediation, and neighborhood stabilization.
- *In weak markets, the benefit is about public amenities and not revenue generation.* The Genesee County Land Bank (GCLB) encourages re-use of the more than 4,000 properties it has acquired in the City of Flint and surrounding areas. As noted above, there is not much competing pressure for development of such sites; rather, the GCLB pays community organizations a small stipend to maintain lots and create at least one urban garden. It also runs an Adopt-a-Lot program that encourages participants, who need not pay, to improve vacant parcels, enhance safety, and strengthen neighborhood ties. Hence, an important goal of GCLB is property beautification and neighborhood stabilization, thus reducing the municipal costs associated with either maintaining the parcels or else bearing the financial consequences that may occur when parcels are allowed to deteriorate.
- *Ideal sites for urban agriculture depend on a variety of criteria.* In a recent publication entitled “Cultivating the Commons: An Assessment of the Potential for Urban Agriculture on Oakland’s Public Land” the criteria include: the location of “food deserts,” lot ownership, lot size, soil quality, the slope of the land, and existing zoning.¹³ However several cities accomplish this optimal siting through user identification. Noteworthy urban agriculture initiatives in cities such as Seattle and Baltimore facilitate community groups’ identifying parcels of interest through a specific inquiry or a response to an “adopt a lot” program, rather than initiating the selection of potential urban agriculture sites first and then seeking out interested individuals and groups.

3.2 Urban Agriculture in Philadelphia

Closer to home, Philadelphia has become a noted center in the urban agriculture movement, attracting attention from the Obama Administration as well as advocates across the country. Urban agriculture activities – farming, gardening and nurseries – in Philadelphia are diverse in type, scale, and objective, and taking place all throughout the City.

¹³ “Cultivating the Commons: An Assessment of the Potential for Urban Agriculture on Oakland’s Public Land,” Institute for Food and Development Policy (October 2009).

Existing urban agriculture activities span the spectrum from communal to commercial and large to small, marking Philadelphia as a city rich in urban agriculture. In fact, according to a recent report by the Trust for Public Land, the City has 571 community garden plots, ranking it 14th in the US in terms of plots per 10,000 residents.¹⁴ Notable elements of urban agriculture in Philadelphia include the following:

- *Urban agriculture on large sites is on the fringe of the City where densities are low and parkland is abundant, allowing for agricultural activity at a scale not possible in more central parts of Philadelphia.* In the upper northwest, Manatawna Farms is a historic Fairmount Park site that includes a mid-nineteenth century barn and an Italianate farmhouse, with land actively used to produce feed for livestock at Saul Agricultural High School. The adjacent Schuylkill Center for Environmental Education, the largest privately-held amount of open space in Philadelphia, operates an organic community garden on the Manatawna site with 500 plots at 375 square feet each as well as a separate 3-acre farm whose produce is sold through a CSA administered by Urban Girls Produce and an on-site farm stand. They hope to expand the farm to 6 acres this year. In the upper northeast, Fox Chase Farm is a 112-acre working livestock farm. While closed to the public, it is open for specific events, school visits, and 4-H club activities. Finally, Benjamin Rush State Park in the upper northeast is home to one of the world's largest community gardens at 11 acres. It is divided into 315 plots of 900 square feet each. Farming on the site dates back to an early 18th-century family farm. There is also a large site near the airport in southwest Philadelphia. The above examples and 7 other major sites of urban agricultural activity on a smaller scale are shown on a map below. These are operating farms on a smaller scale (some closer to that of community gardens) and several are tied to schools.¹⁵
- *Meanwhile, there are hundreds of community gardens on much smaller plots, with many in dense neighborhoods shoehorned onto 1/10-acre lots where row houses once stood.* Given their sheer number, they are harder to classify than the large sites, but they generally consist of groups of neighbors who divide a site into smaller plots, sharing equipment, water, advice, materials, and perhaps the finished product. There are 20 such gardens spread across the city preserved through land trust by the Neighborhood Gardens Association. Some have a formal or informal arrangement with a public landowner, such as Spring Gardens on RDA land, or privately owned land where the owner has not yet developed the site, such as Sloan Street Community Garden. Countless, however, are "guerrilla gardens," which occupy vacant land without respect to ownership or tenure.
- *Local food non-profits that facilitate consumer access are also important actors in Philadelphia. Demand is increasing for locally grown food and many agriculture operations seek to meet that demand through the help of third parties.* Organizations like the Food Trust and Farm to City are part of a strong network of farmer's markets and community support agriculture (CSA) operations.

¹⁴ "Community Garden Plots per 10,000 Residents," Trust for Public Land (August 10, 2009).

¹⁵ The other major urban farms are: Mill Creek Farm, Greensgrow Farm, Weaver's Way Farm, Flat Rock Farm, Saul Agricultural High School, University City High School, and Martin Luther King High School. See Appendix F for a full list of the 12 main food-producing urban farms located within the City.

Community gardens, which represent an important component of urban agriculture, are not included in this map, as a full inventory of community gardens located within the City was not available at the time of the publication of this report.

Additionally, the Common Market has organized itself as a local supply chain to connect local growers with institutional buyers. Consequently, Philadelphia has a national reputation for its local food efforts.¹⁶

- *Community agriculture entities operating in response to concerns about “food deserts,” specifically provide access to locally grown food for low income families.* Farmer’s markets can be prohibitively expensive for lower-income residents, if they are even present in one’s neighborhood, while the upfront investment of a CSA membership is likely out of the question. In turn, highly processed food options typically found in corner stores, fast food outlets, and school lunches are all readily available where fresh produce is not, contributing to health problems. While the problem is too vast for even a robust urban agriculture program to solve by itself, local food production can make some difference. For example, Mill Creek Farm specifically target low-income customers by selling at the lowest prices they can afford and making payment available through Electronic Benefit Transfer cards (i.e. food stamps). The Veggie Kids, who grow produce at the numerous West Philadelphia gardens run by the Urban Tree Connection, sell door-to-door to their neighbors.
- *In Philadelphia, there are agricultural enterprises that are profitable.* While many caution that the margins are small in urban agriculture and that it can be difficult to compete against rural farms that benefit from economies of scale, there is a strong local voice that believes in the economic potential of urban agriculture. As a broad-based business, Greensgrow Farm is a flourishing model that combines a successful nursery operation with fresh produce sold via farm stand and a popular CSA. For more narrowly defined farming, the Institute for Innovations in Local Farming studied the Somerton Tanks farm on Philadelphia Water Department land and declared that an income higher than the median for Philadelphia is plausible on a half-acre lot with intensive, full-time labor. A more likely scenario is the extra income that a small garden can provide. Advocates of small plot intensive (SPIN) farming have several models of economically viable agriculture at different scales depending on the size and amount of land available. The labor input is much smaller than the Somerton Tanks case and be pursued as a part-time effort to supplement the gardener’s primary source of income.¹⁷
- *For some non-profit organizations, food is an effective tool through which to achieve their social objectives.* Operations like Urban Tree Connection and Teens 4 Good did not initially set out to make food production their main objective. However, they discovered that growing food-bearing plants engages children and adults alike, cleans up otherwise blighted lots, and provides a teachable platform for science (botany, biology) and math (inventory tracking, bookkeeping). Inner-city children are in many ways divorced from nature, and those in the non-profit sector, as well as educators at W.B. Saul High School of Agricultural Sciences, point to the intrinsic value in showing an urban child how crops are cultivated and food is produced.

¹⁶ It is important to note that “local” in this context refers to anything grown within the Philadelphia region as a whole, the vast majority of which is grown outside the City and very little of it produced in urban farms and community gardens actually located within City limits. A notable exception is Teens 4 Good, a Philadelphia-based operation that has relationships with a dozen restaurants in Center City, Manayunk, and Northern Liberties.

¹⁷ Importantly, feasibility usually depends on the land being free; if there is an upfront or ongoing cost associated with the land, that may change the profitability of urban agriculture efforts.

- *There is a civic vision for urban agriculture, with a diversity of urban farms and community gardens supported by public and private resources.* Going back to 2006, the Philadelphia LandVisions International Design competition sought solutions for the City’s abundant vacant land, where the ambitious “Farmadelphia” was one of the winning entries. Meanwhile, major institutions such as the Penn State Cooperative Extension and the Pennsylvania Horticultural Society can offer technical advice and in some cases the equipment and material necessary to undertake an agricultural project.

3.3 The Spatial Distribution of RDA-Controlled Parcels and of Urban Agriculture Sites in Philadelphia

The RDA currently controls about 2,500 parcels of vacant land within the City, spanning 130 acres (see Figure 3.1 and Figure 3.2).¹⁸ They are dispersed throughout the City, but, by number, are disproportionately in low-income neighborhoods: 75 percent are located in North and West Philadelphia (see Figure 3.3), while 77 percent are in Census tracts with median household incomes of less than \$25,000 (see Figure 3.4). Because of the City’s extensive Fairmount Park system, the vast majority of RDA parcels are near other open space: 91 percent are less than 1/5 mile from a park (see Figure 3.5).¹⁹

Figure 3.1
Distribution of RDA-Controlled Parcels, by Parcel Size
(The Top 10 Percent by Lot Area Make Up 74 Percent of the Lot Area)

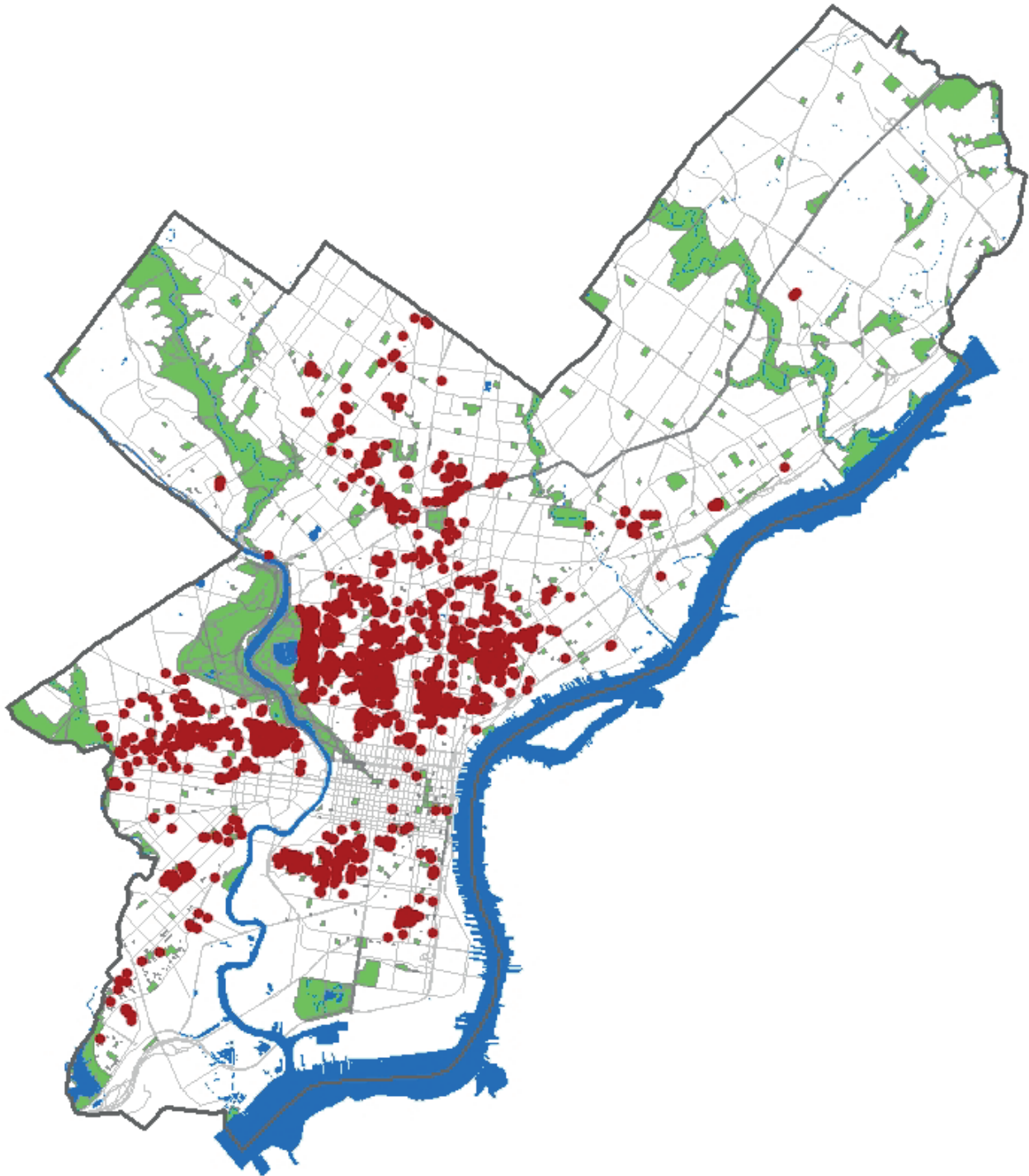
Category	# Parcels	Lot SF	Lot Acres	% Total
All	2,492	5,647,076	129.6	100%
Top 20%	498	3,693,994	84.8	65%
Top 10%	249	3,219,489	73.9	57%
Top 20	20	1,251,814	28.7	22%
Top 10	10	855,017	19.6	15%
Top 1	1	142,799	3.3	3%

Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

¹⁸ The RDA controls more unique parcels than this, but for the purposes of this report, where two or more parcels were contiguous, they were combined and treated as one, larger parcel. This reflects the possibility that they would be sold in this way, or alternatively that they would be used for urban agriculture in this way.

¹⁹ See Appendix G for additional visuals on the spatial distribution of RDA-controlled parcels.

Figure 3.2
Location of RDA-Controlled Parcels
(Most are Located in North and West Philadelphia)



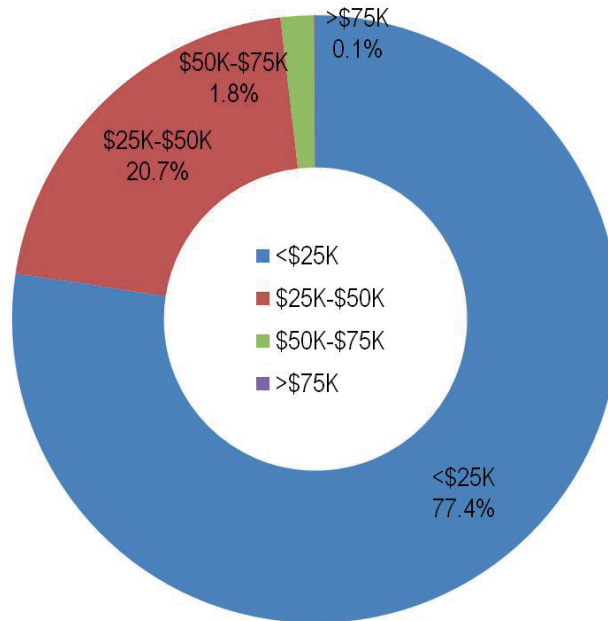
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

Figure 3.3
Distribution of RDA-Controlled Parcels, by Lot Size and Real Estate Sub-Market
(89 Percent are 1/20-Acre or Less, and 75 Percent are in North Philadelphia or West Philadelphia)

	Center City / Fairmount	Kensington -Frankford	Lower NE Phila.	North Phila.	NW Phila.	South Phila.	Univ. City	Upper NE Phila.	West Phila.	Grand Total
\$0-\$10/SF	0.0%	1.2%	0.0%	9.7%	0.0%	0.2%	0.0%	0.1%	10.1%	21.5%
\$10-\$11.5/SF	0.1%	1.7%	0.0%	11.7%	0.0%	0.9%	0.0%	2.8%	0.0%	17.2%
\$11.5-\$12.5/SF	0.0%	1.3%	0.0%	9.4%	0.0%	5.2%	0.0%	4.1%	0.0%	20.0%
\$12.5-\$15.5/SF	0.0%	2.1%	0.3%	13.6%	0.0%	0.6%	0.9%	2.3%	0.0%	20.0%
\$15.5-\$275/SF	3.4%	1.9%	0.3%	10.6%	0.1%	4.0%	0.1%	1.1%	0.0%	21.4%
Grand Total	3.5%	8.0%	0.6%	55.0%	0.2%	10.9%	1.1%	0.1%	20.5%	100.0%

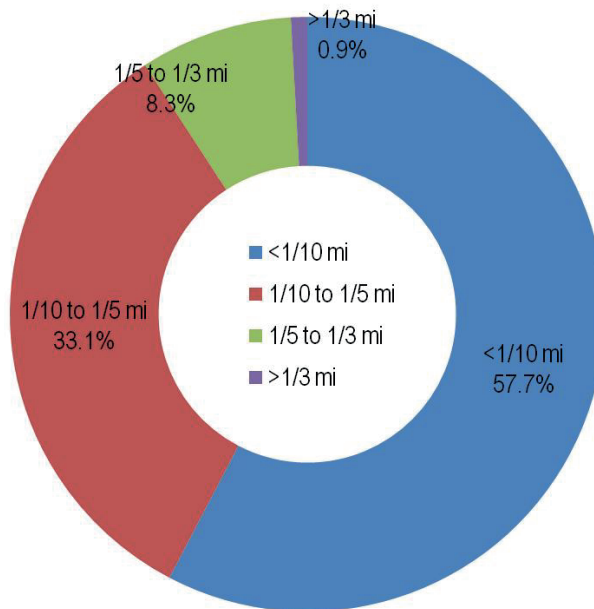
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

Figure 3.4
Distribution of RDA-Controlled Parcels, by Household Income
(77 Percent are in Census Tracts with Median Household Income of <\$25,000)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009), US Census Bureau (2000)

Figure 3.5
Distribution of RDA-Controlled Parcels, by Distance to Nearest Park
(91 Percent are within 1/5 Mile of Fairmount Park Land)

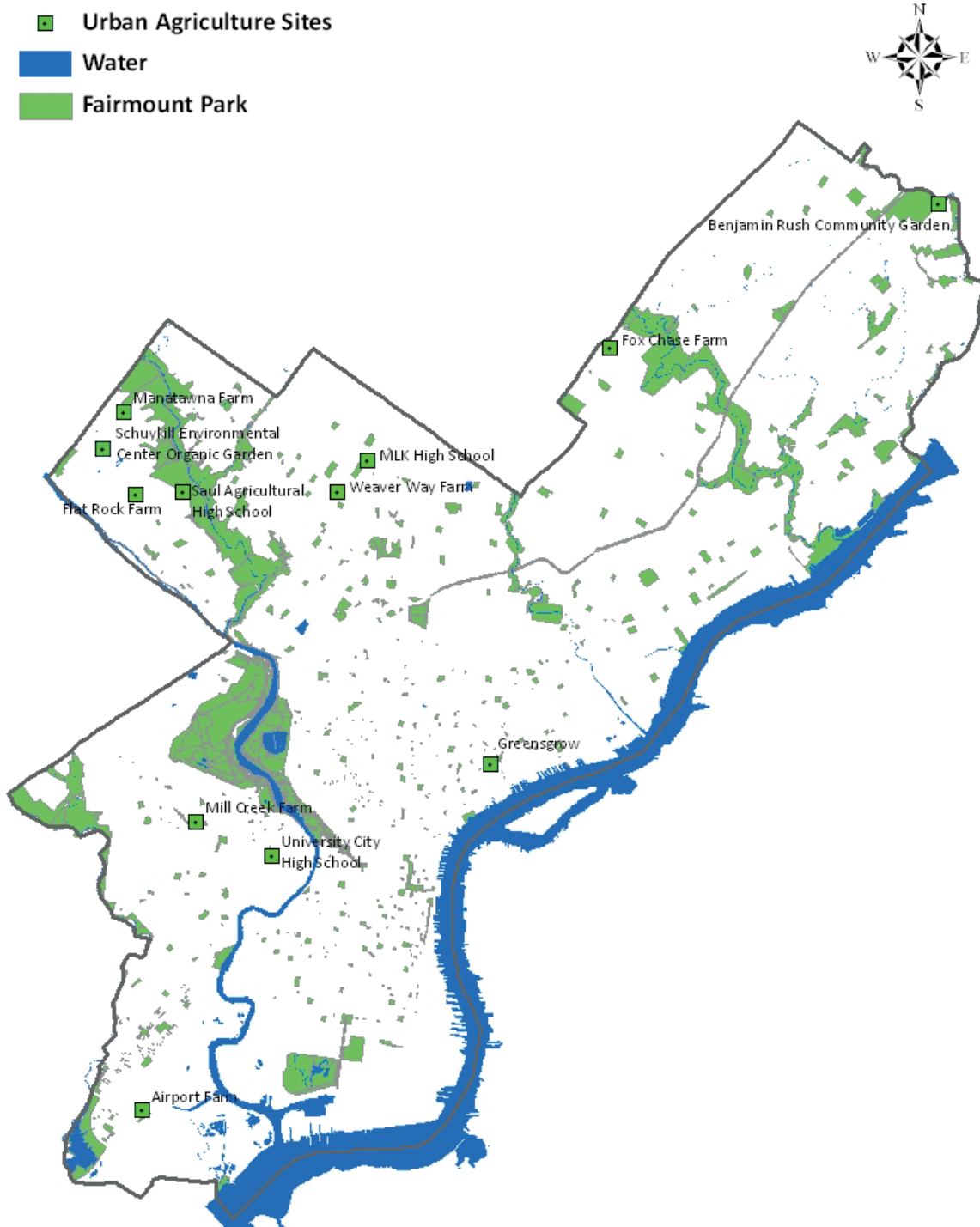


Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

As noted above, urban agriculture represents a wide range of types, sizes, and locations.²⁰ The 12 main food-producing urban farms located within the City include larger-scale operations on the fringe of the City, as well as significant efforts in the heart of high-density residential neighborhoods (see Figure 3.6). To the extent that urban agriculture is considered a partial solution to the mismatch within the City of food supply and food demand, and that RDA parcels are being considered as potential locations for urban agriculture, it is useful to consider where RDA parcels are in relation to current food access sites, such as grocery stores and urban farms. In fact, 47 percent of RDA parcels are within a ½-mile of a grocery store, while 27 percent are within a mile of an urban farm (see Figure 3.7 and Figure 3.8).

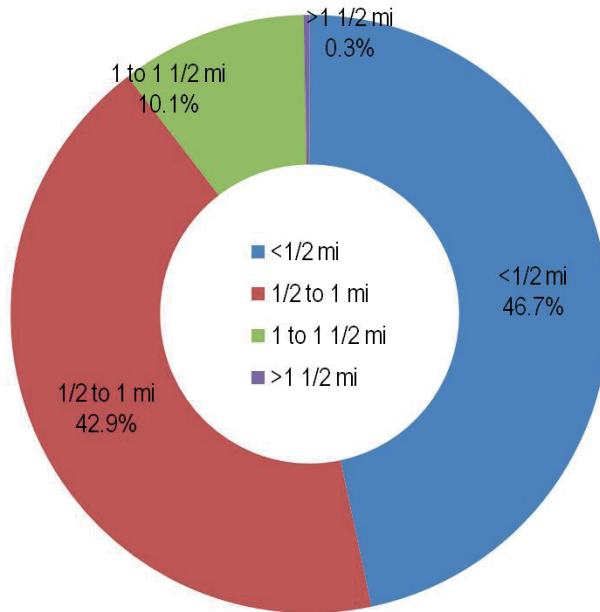
²⁰ See Appendix H for additional visuals on the spatial distribution of urban farms in Philadelphia.

Figure 3.6
Location of Major Urban Farms within the City
(Some on the City's Fringes and Some in the City's Neighborhoods)



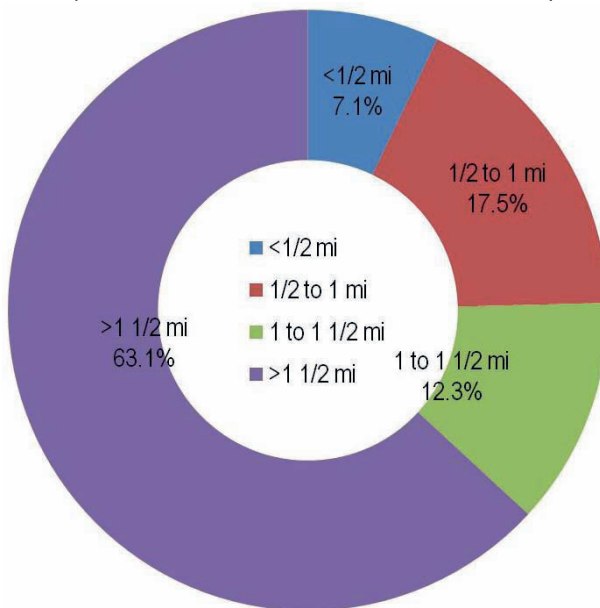
Source: Econsult Corporation (2009), Philadelphia Redevelopment Authority (2009), Delaware Valley Regional Planning Commission (2009)

Figure 3.7
Distribution of RDA-Controlled Parcels, by Distance to Nearest Grocery Store
(47 Percent are within a 1/2-Mile of a Grocery Store)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

Figure 3.8
Distribution of RDA-Controlled Parcels, by Distance to Nearest Urban Farm
(27 Percent are within a Mile of an Urban Farm)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009),
Delaware Valley Regional Planning Commission (2009)

4.0 IMPLICATIONS

The Philadelphia Redevelopment Authority (RDA) is an economic development and land use entity that works in conjunction with the City to stabilize, revitalize, and develop neighborhoods. Any urban agriculture programming undertaken by the RDA should be resonant with this core organizational mission. As with any public policy agenda, urban agriculture represents a series of trade-offs, which need to be identified and explored in order to understand the best way forward. In the case of the RDA, it must weigh the costs and benefits of urban agriculture, in a broader policy sense as well as at an individual parcel level, an evaluation complicated by the fact that costs are borne and benefits enjoyed at different levels by different stakeholders.

The attractiveness of urban agriculture lies in the ways in which it intersects with a myriad of economic and social agendas, and in the variety of ways in which it can be pursued. This is reflected in the wide range of governmental, non-profit, and for-profit entities that are interested in urban agriculture. The subject finds natural intersection with such City agencies as Parks and Recreation, Planning Commission, the Mayor's Office of Sustainability, the Philadelphia Water Department, and the Health Department, among others. Crucial to capitalizing on this window of opportunity is the ability of relevant City agencies to have a shared sense of the relative benefits and costs of urban agriculture, as it relates to its purported objectives. Accordingly, the purpose of this section is to synthesize data collected and lessons learned from previous sections, and, en route to making recommendations in Section 5, identifying and weighing the benefits and costs associated with any RDA efforts to support urban agriculture.

4.1 Weighing the Intended Benefits of Urban Agriculture

It is beyond the scope of this report to do more than cursory coverage of the many intended benefits of urban agriculture. However, it is important to recognize them, explore the extent to which they matter to different entities, and verify they are actually achieved by efforts that encourage urban agriculture. In other words, it can be easy to conclude that because urban agriculture can lead to many positive outcomes therefore an organization that is contemplating a particular urban agriculture initiative must obviously pursue it, without instead of first testing whether that organization is the appropriate operator of that initiative, whether that initiative is the right one to pursue, or whether any benefits that result would be more effectively secured by alternative uses of those resources and energies.

It is important to actually understand and weigh these benefits because the challenge for the RDA, and for other public and private landowners contemplating whether or not to allow urban agriculture on its sites and what terms, is to reasonably balance those purported benefits, financial and social, with the opportunity costs associated with not then having those sites available for other, potentially more attractive uses. Selecting sites for urban agriculture, and matching them up with prospective operators, is still more art than science; but an overall framework for weighing costs and benefits must be part of the decision-making process.

However, such a cost-benefit evaluation is complicated by the fact that while the costs of allocating a parcel of land for urban agriculture are largely borne by the landowner, the benefits may be enjoyed more diffusely. Furthermore, while costs are fairly straightforward to estimate, since they are largely equivalent to the market value of the use of the land parcel(s) in question, benefits can range from the reasonably quantifiable to the largely qualitative: in the case of parcels controlled by the RDA, the benefits of urban agriculture can be thought of as accruing to three groups: to the public sector (i.e. the City of Philadelphia), to the private operator (i.e. individual practitioners of urban agriculture), and to the general public.²¹

4.2 Urban Agriculture as a Land Use

It is important for localities that land is developed at its highest and best use because property tax revenues represent a significant portion of funding for important public goods such as schools. However, localities must also be mindful that not all parcels can or should be developed; parks, for example, do not directly generate property tax revenues, but are still justified for the enhancing effect they have on parcels that do generate property tax revenues.

Thus, land values and local tax revenues are just one side of a locality's cost-benefit comparison. A parcel of land may be relatively high in value (denoting its promise as a location for development) and yet uses such as urban agriculture may still be justified: the land may be fertile enough to make sense as a commercial venture, or alternatively a particular neighborhood's lack of green space may mean that the addition of an urban agriculture site will generate large enough positive externalities to nearby locations to justify it being dedicated to urban agriculture.

Urban agriculture may be justified on high-value parcels for non-financial reasons, if the social or environmental benefits of urban agriculture on such sites are deemed sufficient to warrant not developing them for higher uses. Urban agriculture may be deemed a particularly attractive way for the City and partnering organizations to pursue goals related to such areas as stormwater management, open space provision, or hunger relief, and thus land use decisions should take such considerations into account.

Thus, an essential and quantifiable but not solely decisive variable in the RDA's determination of whether and how it should make available a particular parcel of land for urban agriculture is the estimated current and prospective economic value of that parcel of land, as well as how soon the land is likely to be put into use. In a properly functioning land market, land values reflect the value of the parcel as developed to its highest and best use.²² In general, land tends to increase in value as the intensity of development allowed on it increases. Typically, land that is not usable for agriculture or development has the lowest value,

²¹ See Appendix I for a further elaboration of the potential benefits from urban agriculture, both immediate and long-term, and from the more quantifiable to the more qualitative.

²² Note that even land that has no current development potential will have a price greater than zero, reflecting the possibility that the land can profitably be developed in the future.

farmland is next in the hierarchy, and value increases as agricultural land can be profitably developed into residential, commercial, or other uses.²³

This suggests that, all things being equal, parcels with the lowest values are more easily allocated to urban agriculture, because the opportunity cost of not allowing other uses is low, whereas parcels with the highest values are less easily allocated to urban agriculture, because the opportunity cost of not allowing other uses is high. Of course, since uses are allowed for some period of time and cannot be instantaneously swapped, and since land markets are dynamic, one must consider not only a parcel's current use, but what its likely use will be into the foreseeable future. One must also take into account that upcoming revisions to the City's zoning code and to neighborhood plans make for a real estate market in which highest and best uses may evolve significantly.

As noted above, this single-site, "highest and best use" approach, however, must be balanced by other considerations. It is a sub-optimal strategy for a locality to develop every single parcel and not provide for any open space. As the City's economic development and land use entity, the RDA must therefore account not only for what makes economic sense for a particular parcel but also for what makes sense, economically and socially and environmentally, in a geographically broader sense. In short, its land use decisions in aggregate should reflect the City's many land-related priorities, in some cases maximizing property tax revenue generation on the parcels themselves, in other cases maximizing property tax revenue generation at a neighborhood level, and in still other cases providing social or environmental benefits.

4.3 The Inherent Challenges of Developing a Framework for Weighing the Costs and Benefits of Urban Agriculture on RDA-Controlled Parcels

Using hedonic pricing models (economic models that allow the estimation of the contribution of parcel attributes such as lot size and distance to central business district), we estimated the value of RDA parcels based on land sales throughout the City from 2008 through the first quarter of 2010 (see Figure 4.1).²⁴ The aggregate value of the RDA's 2,500 vacant land holdings is estimated to be \$116 million, with the top 10 percent by value comprising 72 percent of that aggregate value (see Figure 4.2). Based on this methodological approach, we estimate that 59 percent of RDA-controlled parcels are valued at less than \$12.50 per square foot, making them effectively devoid of pressure for development into alternative uses, at least at the present time.²⁵ As a bloc, RDA parcels are estimated to be valued at 60 percent less than

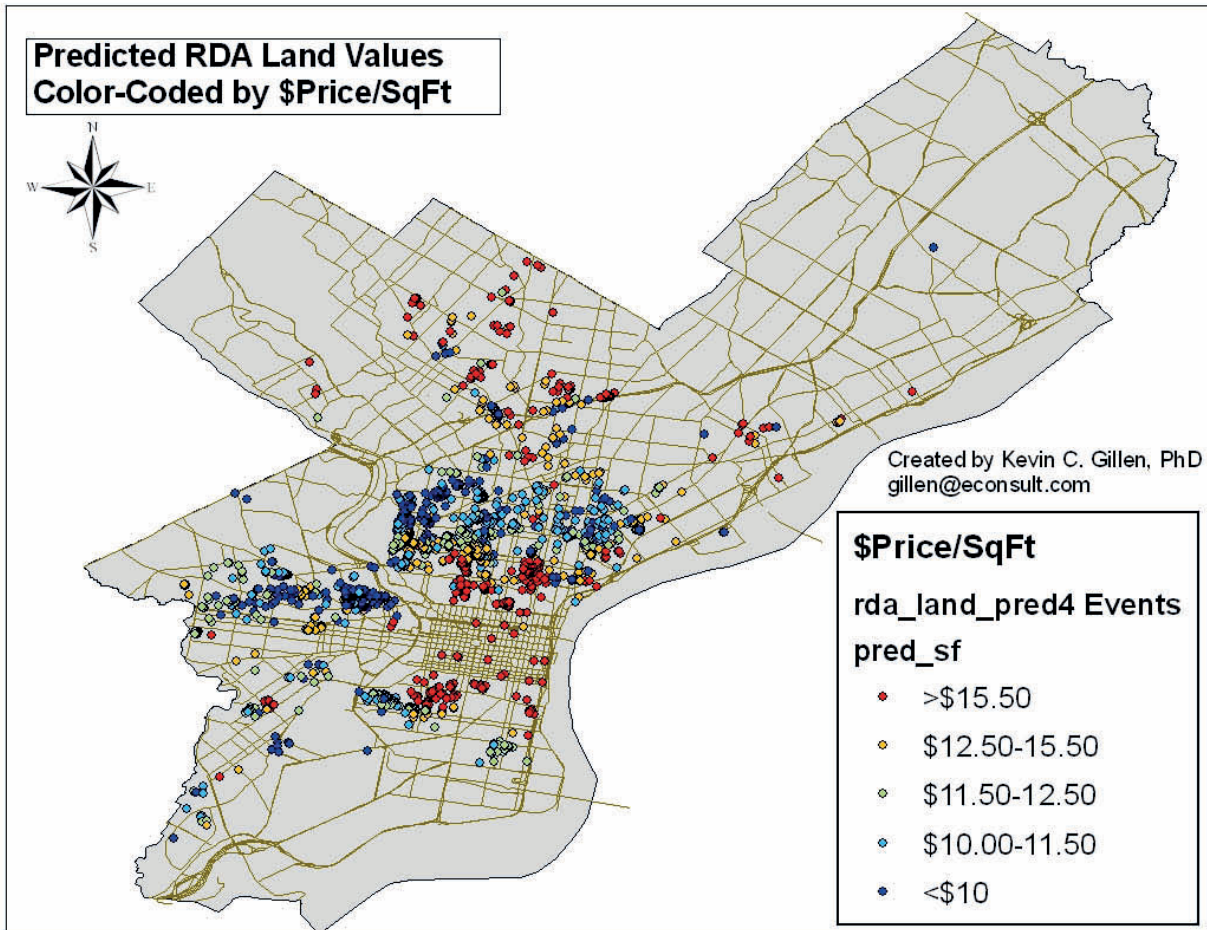
²³ Very little unsubsidized "as of right" development currently takes place within the City. However, the Philadelphia Zoning Code Commission is currently reforming the zoning code. Its work will have implications for both future development and for the determination of which land might be permanently set aside for agriculture.

²⁴ See Appendix J for further information on the methodologies used in making these land value estimates, Appendix K for additional information on estimated land values for RDA parcels throughout the City, and Appendix L for a spreadsheet of estimated prices and prices per square foot for each of the parcels controlled by the RDA.

²⁵ Land costs are typically 20 percent or more of the cost of new houses. If we were to assume that the typical townhouse used 1/20th of an acre, at \$12.50 per square foot the cost of land would be about \$27,000. Because even a small, moderate income house would cost \$150,000 or more to construct, the land cost would be about 18 percent of construction costs. This suggests that there is little interest among developers in building on the lot, who would otherwise find such cheap land to be profitable to

the average land sale price, on a per square foot basis, reflecting the fact that the majority of RDA parcels are located in low land value neighborhoods.

Figure 4.1
Predicted Land Price per Square Foot for RDA-Controlled Parcels as of December 2009,
Based on Hedonic Analysis of Land Sales in Philadelphia, 2008 to Q1 2010



Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

build on and who would bid up the price of the lot. Of course, given current economic conditions, development in the near term is not likely on many parcels.

Figure 4.2
Distribution of RDA-Controlled Parcels, by Estimated Value
(The Top 10 Percent by Value Make Up 72 Percent of the Value)

Category	# Parcels	Estimated Value	% Total
All 2,492		\$116M	100%
Top 20%	498	\$91M	79%
Top 10%	249	\$84M	72%
Top 20	20	\$58M	50%
Top 10	10	\$53M	46%
Top 1	1	\$39M	34%

Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

Most RDA parcels are very small: parcels that are 1/20-acre or smaller represent 89 percent of all RDA sites, as well as 86 percent of RDA sites that are valued at \$12.50 per square foot or less (see Figure 4.3). In fact, there are only 12 RDA sites that are larger than one acre.²⁶

Figure 4.3
Distribution of Predicted Land Price per Square Foot for RDA-Controlled Parcels, by Lot Size
(59 Percent are Estimated to Have a Market Value of Less Than \$12.50 per Square Foot, and of Those Parcels, 86 Percent are 1/20th-Acre or Less)

	<1/40 acre	1/40-1/20 acre	1/20-1/10 acre	1/10-1/2 acre	1/2-3 acre	Grand Total
\$0-\$10/SF	9.1% 6.8	% 1.9	% 2.7	% 1.0	%	21.5%
\$10-\$11.5/SF	9.8% 5.4	% 1.0	% 0.8	% 0.1	%	17.1%
\$11.5-\$12.5/SF	12.0%	7.0% 0.5	% 0.4	% 0.0	%	19.9%
\$12.5-\$15.5/SF	9.8% 9.2	% 0.6	% 0.3	% 0.0	%	19.9%
\$15.5-\$275/SF	11.2%	8.3% 0.8	% 0.9	% 0.2	%	21.4%
Grand Total	52.0%	36.8%	4.8% 5.1	% 1.4	%	100.0%

Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

²⁶ See Appendix K for a full list of the 12 RDA parcels that are larger than one acre.

Thus, there are few if any RDA sites that are both appropriate for urban agriculture from an economic perspective (i.e. the land value is low enough that agriculture represents the site's highest and best use), as well as having sufficient scale to make urban agriculture relatively feasible (i.e. the lot size is large enough to allow for even space-constrained forms of agriculture). This presents the first inherent challenge in match-making between users, uses, and spaces, and for weighing costs and benefits at the individual parcel level: while there may be many RDA sites that practitioners want to use for urban agriculture purposes, there are not many if any RDA sites that are in the RDA's best interest, at least from a single parcel standpoint, to make available for permanent urban agriculture.²⁷

The second inherent challenge is related to the first. Urban agriculture is usually pursued by practitioners and encouraged by governments not purely for financial gain, but also for a variety of other social, environmental, and quality of life benefits. However, as noted earlier, the RDA is fundamentally both an economic development and land use entity; therefore, it may be ill-suited, in terms of mission fit, to pursue urban agriculture efforts on a more permanent basis, when compared to other City agencies and private entities whose core objectives more easily intersect with the intended benefits of urban agriculture.

Nevertheless, it may be appropriate for the RDA to pursue urban agriculture on a temporary basis on its low-value parcels, regardless of whether it represents the highest and best use of those parcels, if such activity increases the value of those parcels and of neighboring parcels. The challenge then, is to create a process by which the RDA and prospective urban agriculture practitioners can efficiently agree on particular uses on particular parcels: the practitioners, being mindful of the terms of their access to these parcels, need to be able to accomplish their goals, whether commercial or communal (or a combination of both), and the RDA needs to monitor urban agriculture activity on its parcels over time, and be able to convert such parcels to non-agricultural uses in the future, should they so choose. How these arrangements can proceed is the subject of Section 5.

²⁷ This is a broadly true statement for all land within a densely populated municipality. However, in concert with other City agencies, there may be a case to be made to designate certain RDA parcels for permanent urban agriculture as part of a broader strategy to use open space to enhance property values at the neighborhood level and/or to accrue desired social or environmental benefits. This is a concept that is further elaborated in Section 5.

5.0 RECOMMENDATIONS

In formulating recommendations for a way forward for the Philadelphia Redevelopment Authority (RDA) on the subject of urban agriculture and land use policy, we are guided by three overarching principles:

- First, we seek to balance the fact that urban agriculture intersects naturally with many other goals within the Administration, as well as the needs of for-profit and non-profit entities within the City, with the mission, goals, and incentives of the RDA in its control over and disposition of land parcels.
- Second, we seek to balance the many objectives and expressions of urban agriculture among a diversity of public and private sector entities, with the RDA's need for an urban agriculture policy framework that is clear, focused, and achievable.
- Third, we seek to balance the necessity for a transparent and consistent process with the need for flexibility and adaptability as lessons are learned and land markets evolve.

Based on those principles and on the information collected in the course of this engagement, we arrived at the following overall recommendations to the RDA concerning a land use policy framework for urban agriculture (see Figure 5.1):

Figure 5.1
Overall Recommendations to the RDA

1. Determine whether some RDA parcels warrant being transitioned over to other City agencies or non-profit entities for permanent urban agriculture.
2. Focus the RDA's urban agriculture efforts on temporary arrangements, and establish a framework for matching parcels, users, and uses.
3. Set the performance terms for temporary urban agriculture users on RDA land.
4. Set the lease price and time frame for each RDA parcel for temporary urban agriculture use, and otherwise allow all parcels to be available to be bid on.
5. Manage the Request for Proposal (RFP) process so as to be as flexible and strategic as possible.
6. Establish the potential "exit strategy" options that are available upon the conclusion of a lease term.

7. Develop an informational document that expresses the RDA's position on urban agriculture and on how the RFP process will proceed.
8. Provision sites for USDA cooperative efforts to establish model projects in Philadelphia.

Source: Econsult Corporation / Penn Institute for Urban Research (2010)

1. Determine whether some RDA parcels warrant being transitioned over to other City agencies or non-profit entities for permanent urban agriculture.

When the growing number of Philadelphia residents and organizations that are interested in pursuing urban agriculture within City limits consider the most important input into their hopeful endeavor – the land upon which they will pursue their urban agriculture activities – they engage in an evaluative process that is nuanced and multi-layered. They must consider the physical and infrastructural characteristics of a particular parcel, as well as the locational and socio-economic characteristics of the part of the City in which that parcel sits; and, they must match the site's positive and negative traits with their intended uses and objectives.

Importantly, the viability of a particular urban agriculture endeavor and of a particular parcel of land may depend significantly on whether the parcel in question will be available on a permanent basis or on a temporary basis, and if temporary, on how many years of use are guaranteed. Preferably, some sites should be made permanently available for urban agriculture, and RDA parcels may represent some promising candidates for those sites.

Whether for reasons of agricultural productivity, strategic location, or social and environmental advancement, there may be parcels among the RDA's inventory that should be considered for permanent urban agriculture. Ideally, these are sites that are deemed low in market value by the RDA (i.e. no development pressures are anticipated, whereby permanently designating them for urban agriculture would preclude other attractive market or below-market uses), and that are identified by other City agencies and non-profit entities as being particularly suited for urban agriculture. Therefore, the RDA should enter into discussions with other City agencies and non-profit entities to identify if such parcels exist, and if so how they may be transitioned out of RDA control for designation as permanent agriculture sites.

2. Focus the RDA's urban agriculture efforts on temporary arrangements, and establish a framework for matching parcels, users, and uses.

From the perspective of the RDA, urban agriculture should generally be pursued via temporary arrangements. Use of RDA lands by urban agriculture practitioners may be a more cost-effective way in which to positively enhance those sites or at least prevent them from declining in appearance; these efforts can go a long way towards stabilizing blighted neighborhoods and reclaiming locations as viable

development sites. Furthermore, to the degree it has funding to cover oversight costs, the RDA is uniquely positioned to meet the growing demand for land for urban agriculture, because it controls 2,500 parcels throughout the City, most of which are not needed for alternative use at least in the short term; thus, prospective operators may have access to land for their urban agriculture endeavors at price points and locations not otherwise available to them. Finally, the RDA's burgeoning relationship with the US Department of Agriculture (USDA) provides a platform for any agricultural, operational, and logistical lessons learned along the way to be effectively disseminated at a regional and national level, for the benefit of other urban agriculture practitioners and local government agencies.

Urban agriculture efforts led by the RDA should therefore focus on temporary arrangements. The RDA may have need in the future for its parcels for development purposes, and most of its parcels do not possess the characteristics that are conducive to more permanent allocations for urban agriculture; but making parcels available for temporary urban agriculture use would greatly expand the land available to prospective operators.

This is the general approach taken by the City of London as it relates to vacant land and urban agriculture, and it can be positively deployed in Philadelphia as well. In conjunction with whatever parallel efforts are undertaken by other City agencies and private entities to enable permanent urban agriculture within the City, the RDA can concentrate its efforts and resources towards the temporary provision of land for urban agriculture.

To offer as much choice as possible to the market place of prospective urban agriculture operators, the RDA should make available for temporary urban agriculture all parcels it does not anticipate that it will need for alternative use within the next 18 months, and accept as many qualified candidates as it has organizational bandwidth to oversee. It will likely be the vast majority of the RDA's inventory that can be made available for temporary urban agriculture, which has the benefit of giving prospective urban agriculture operators many choices in terms of locations, neighborhoods, and price points. As a general rule, RDA parcels that should be excluded from the available list, at least until further review, include the following:

- Parcels estimated to have higher market values (denoting potential current or future development possibility)
- Parcels that may be rezoned in ways that may make "as of right" development more attractive and therefore generate more immediate development pressure²⁸
- Parcels for which the RDA has received interest for development
- Parcels for which other City agencies or non-profit entities have expressed interest (whether for permanent urban agriculture or some other open space use, or alternatively some other strategic purpose such as affordable housing)

²⁸ The timing and implications of current zoning code reform work are unknown at this time, but because the RDA is largely focusing on temporary land availability for urban agriculture, it will have more flexibility with its parcels, once new zoning is in place, to respond to any significant shifts in interest in particular parcels.

Of course, not all RDA parcels will be of interest to the vast majority of potential users; in fact, it is likely that most parcels will not be feasible for a variety of reasons, most commonly their relatively small size; furthermore, shorter time periods of land control may not be feasible for many potential users. Nevertheless, the RDA should not preemptively make decisions as to the relative attractiveness of a particular parcel within its inventory, or as to the relative viability of a particular user or use on that parcel; rather, individual users should decide what they require, in terms of a particular parcel and the length of time they will need for a potential endeavor to be worthwhile.²⁹

What is worth the RDA pre-determining for each of its parcels is the lease price, time commitment, and terms of use it is willing to agree to, should a user be willing to pay the lease price, honor the time commitment, and obey the terms of use. This is the subject of the next two recommendations.

3. Set the performance terms for temporary urban agriculture users on RDA land.

While the RDA can and should differentiate parcels on the basis of the lease price it requires (which may be zero) and the time commitment it is willing to make, other, performance-oriented terms of use should not vary by parcel. Terms should clearly articulate expectations, responsibilities, and permitted and forbidden uses, setting a baseline performance standard that applies for all such temporary urban agriculture arrangements with the RDA. Lessees should have the ability to sub-let a parcel if it retains responsibility for all sub-lease actions, so that non-profit groups can be encouraged to enter into lease agreements with the RDA and then make land available to their constituencies. Lessees should take responsibility for all ongoing site maintenance, while the RDA should commit to annual monitoring visits to ensure compliance during the lease period. Failure to comply with the performance terms of the lease would be grounds for termination of the lease, opening up the parcel(s) to be available for bid by other potential operators.³⁰

²⁹ When the growing number of Philadelphia residents and organizations that are interested in pursuing urban agriculture within City limits consider the most important input into their hopeful endeavor – the land upon which they will pursue their urban agriculture activities – they engage in an evaluative process that is nuanced and multi-layered. They must consider the physical and infrastructural characteristics of a particular parcel, as well as the locational and socio-economic characteristics of the part of the City in which that parcel sits; and, they must match the site's positive and negative traits with their intended uses and objectives. Importantly, the viability of a particular urban agriculture endeavor and of a particular parcel of land may depend significantly on whether the parcel in question will be available on a permanent basis or on a temporary basis, and if temporary, on how many years of use are guaranteed. Nevertheless, rather than being pre-determined by the RDA, these choices are best left to prospective operators to determine, from which they can choose to bid or not bid on particular parcels.

³⁰ See Appendix C for a sample lease agreement that is used in the City of Milwaukee, and Appendix D for a sample lease agreement that is used in the City of Seattle. Useful precedents are highlighted for ease of reference.

Notably, the City of Milwaukee's temporary urban agriculture model involves leasing parcels to Milwaukee Urban Gardens, a non-profit organization, which then sub-leases space to individuals and groups interested in operating urban agriculture sites. Under such an arrangement, it is Milwaukee Urban Gardens and not the City of Milwaukee that does most of the selecting and monitoring of users. In the case of the City of Seattle, the P-Patch Community Garden Program within the City's Department of Neighborhoods plays this leasing and technical assistance role.

It is important to note that agricultural productivity is not a metric that the RDA should interest itself in, in terms of determining before the fact whether to allow a prospective operator to have access to a parcel for temporary urban agriculture, or of determining after the fact whether to allow him or her to renew a lease to do so. Such metrics are too varied across multiple uses and too subject to forces beyond an operator's control to factor into such decisions. Rather, the RDA should hold operators to very achievable minimum levels of food-growing productivity, but otherwise focus more on the extent to which the operator was "a good neighbor," in terms of adhering to the terms of the lease, maintaining the property, and enhancing the site in its relation to the neighborhood in which it is located.

4. Set the lease price and time frame for each RDA parcel for temporary urban agriculture use, and otherwise allow all parcels to be available to be bid on.

While performance terms will not vary from parcel to parcel, lease prices and time frames can and should, reflecting the fact that there is very real differentiation between parcels, from the RDA's standpoint. The higher-valued parcels in the RDA's inventory will require higher lease prices to secure, reflecting the higher opportunity cost associated with enabling urban agriculture on a temporary basis rather than reserving the parcels for an alternative use. Furthermore, the higher a parcel is valued, the shorter the time commitment the RDA would be willing to guarantee temporary use for urban agriculture, reflecting the higher probability that the parcel will be useful to the RDA in the near future for development purposes.

As noted above, the RDA should not include any parcels it anticipates needing to be available in the next 18 months. Of the remaining inventory, all parcels should be made available to be bid on, provided users are willing to pay the lease price and accept the time frame established by the RDA. In many cases, because of the relatively low estimated value of most RDA parcels, the lease price will be zero, and the time frame may be set for greatest flexibility at three years, for example.³¹

However, in some cases, in which land values are higher and/or development possibilities more likely, the RDA may choose to set a lease price (although still below market value³²) and impose a time period for the lease (as short as one year). Rather than pre-determine that these sites will not be made available for urban agriculture, the RDA should simply set a lease price it is willing to accept and a time commitment it is willing to honor, and if a prospective operator is willing to agree to those terms, there is no downside to the RDA to enter into such an agreement rather than keep the parcel out of use.

Importantly, in pricing these parcels, the RDA must balance the need to cover the costs associated with administering temporary urban agriculture sites (i.e. staff time, legal costs, insurance) with the desire to encourage and support urban agriculture. To further maximize both efficiency and

³¹ This will be particularly the case in the short-term, since, as noted previously, given current economic conditions, development in the near term is not likely on many parcels.

³² Of course, if a prospective urban agriculture operator wants to buy an RDA parcel outright and is able to pay a price that is acceptable to the RDA, he or she can own the parcel and then choose from among a number of allowable uses, including permanent urban agriculture.

transparency, quoted prices should represent minimum lease levels; bidders should be free to offer to pay more than these levels, so that situations in which more than one bidder is interested in the same parcel can be resolved in a manner that is as objective as possible, assuming that due diligence yields that these bidders are equally qualified to fulfill lease terms.³³

5. Manage the Request for Proposal (RFP) process so as to be as flexible and strategic as possible.

As is described below, the RFP release should fit with in an overall informational campaign that the RDA enters into, such as a comprehensive website, through which its intentions and actions related to urban agriculture can be clearly articulated to the general public. Once imminently needed parcels have been removed and the remaining parcels priced, the RDA should welcome individuals and organizations to review the base lease terms and the inventory of available parcels, and submit statements of interest in one or more parcels. Such a process will enable potential urban farmers and community gardeners to sort themselves by their interest in different locations. While there will likely be a considerable amount of self-selection (large-scale operators will likely avoid small lots, and small-scale operators will likely avoid large lots, for example), the RFP process should be open to all to apply.

The RDA itself is not currently in a position, because of organizational focus and scarce resources, to comprehensively evaluate the fit of user, use, and parcel, or the predicted agricultural productivity of a particular bidder's proposal relative to an alternative operator.³⁴ Rather, the RDA is simply match-making between parcels it controls, and bidders who believe a particular parcel suits their agricultural, commercial, communal, or other objectives. In other words, whether or not a parcel is feasible for a given proposed urban agriculture use is to be determined by the marketplace of prospective operators, and not pre-determined by the RDA; and the selection process should not seek to weigh the relative merits of a proposed user or use, but rather parcels should simply be awarded to the highest bidders who meet basic due diligence qualifications.

Where the RDA can be strategic in its advocacy of urban agriculture is in the participation in the RFP process by third-party non-profit organizations whose missions and networks lend themselves to providing technical assistance to individual urban agriculture sites and developing linkages between sites. Milwaukee Urban Gardens is an example of a non-profit organization that plays this liaising role between a municipality and urban agriculture practitioners (leasing parcels from the City of Milwaukee and then subleasing them to individual operators), as well as among urban agriculture practitioners (coordinating a

³³ In some cases, the RDA may want to explore offering multiple price/time combinations for a particular parcel, or at least retain some flexibility in working with a prospective operator. If, for example, the stated price/time combination for a particular parcel involves too high a lease price for a bidding operator, the RDA should have the freedom to lower the price but also reduce the time commitment; or if the combination involves too short of a time commitment for a bidding operator, the RDA should have the freedom to extend the time commitment but also increase the lease price.

³⁴ Although it may choose to partner or otherwise engage with an outside entity to provide this type of expertise.

network of operators for technical assistance and agriculture productivity purposes).³⁵ In concert with these coordinating and resourcing entities, the RDA can play some role not only in maintaining landlord-tenant relationships with individual urban agriculture operators but also in facilitating connectivity across operators towards a system of urban agriculture sites throughout the City.

It is important to concede that, despite accounting for these and many other important considerations, the process of releasing parcels for bidding, evaluating bidders, and entering into lease agreements is bound to need to evolve over time. These considerations help provide an overall framework for moving forward, but room must be made so that policies can be modified over time, to improve on the RDA's ability to safeguard its interests and resources while working collaboratively with, and not combatively against, urban agriculture operators and their advocates. Particular consideration should be given to developing feedback mechanisms, both internally and externally, so that lessons learned along the way can be captured for the benefit of an improved leasing process for future rounds.

6. Establish the potential "exit strategy" options that are available upon the conclusion of a lease term.

When the lease term is up, one of five outcomes can occur: renew the lease with the same operator, enter into a new lease with a new operator, prepare the site for imminent sale, sell the site, and sell the site but carve out an easement on some or all of the site (see Figure 5.2). What direction the RDA chooses in a particular case will depend partly on the performance of the operator, and partly on the extent to which development pressures have increased to the point that holding the site for urban agriculture is no longer the preferred course of action. These "exit" strategies should be discussed at the commencement of each lease term, as well as during annual check-in sessions, so that there is no confusion on the part of the operator as to what the possibilities are at the end of the lease term or as to how the RDA will determine which direction to go at that point.

³⁵ The P-Patch Community Garden program is an example of a public sector entity, in the case an initiative through the City of Seattle's Department of Neighborhoods, playing a similar role. See • "I Love My P-Patch: A Community Garden Leadership Handbook," P-Patch Community Gardening Program (2009).

Figure 5.2
Alternatives for the RDA for a Parcel of Land Temporarily Leased Out for Urban Agriculture

	Outcome	Description	Operator Performance	Development Pressure
1	Renew lease	Operator allowed to enter into another five-year term	Pass	None
2	Don't renew, don't sell	Operator not allowed to enter into another five-year term; instead, another operator is given a five-year term	Fail	None
3	Don't renew, don't sell yet	Operator not allowed to enter into another five-year term; instead, RDA anticipates impending sale, and operator is allowed to stay on until that sale happens, and is promised adequate notice to vacate ³⁶	Pass	Soon
4	Don't renew, sell	Operator not allowed to enter into another five-year term; instead RDA sells parcel to developer	Irrelevant	Yes
5	Don't renew, sell but put an easement on some or all of the parcel	RDA decides to sell parcel to developer but puts an easement on some or all of the parcel to dedicate it for open space; this "counts" that dedicated space towards the developer's stormwater management requirements, and may (but does not necessarily) mean the operator can continue to do urban agriculture on some or all of the site ³⁷	May be relevant	Yes

Source: Econsult Corporation / Penn Institute for Urban Research (2010)

When a parcel is finally sold, a formula can be used to provide a previous urban agriculture operator with some compensation for his or her role in maintaining and improving the site such that it can now be sold to a private developer, whereas prior to the operator's arrival, it could not or was not. Clearly,

³⁶ "Adequate notice to vacate" is defined as the longer of either 90 days or the end of the current growing season.

³⁷ The easement should require that some or all of the parcel be dedicated for open space, but it is on the developer and not the RDA to decide if some or all of that open space should be for urban agriculture, and further if the current operator, if there is one, should be allowed to stay on as the operator. Nevertheless, there may be a viable way to provide some continuity in urban agriculture use on a particular site, while not adversely affecting the plans and objectives of the developer that is taking over the site.

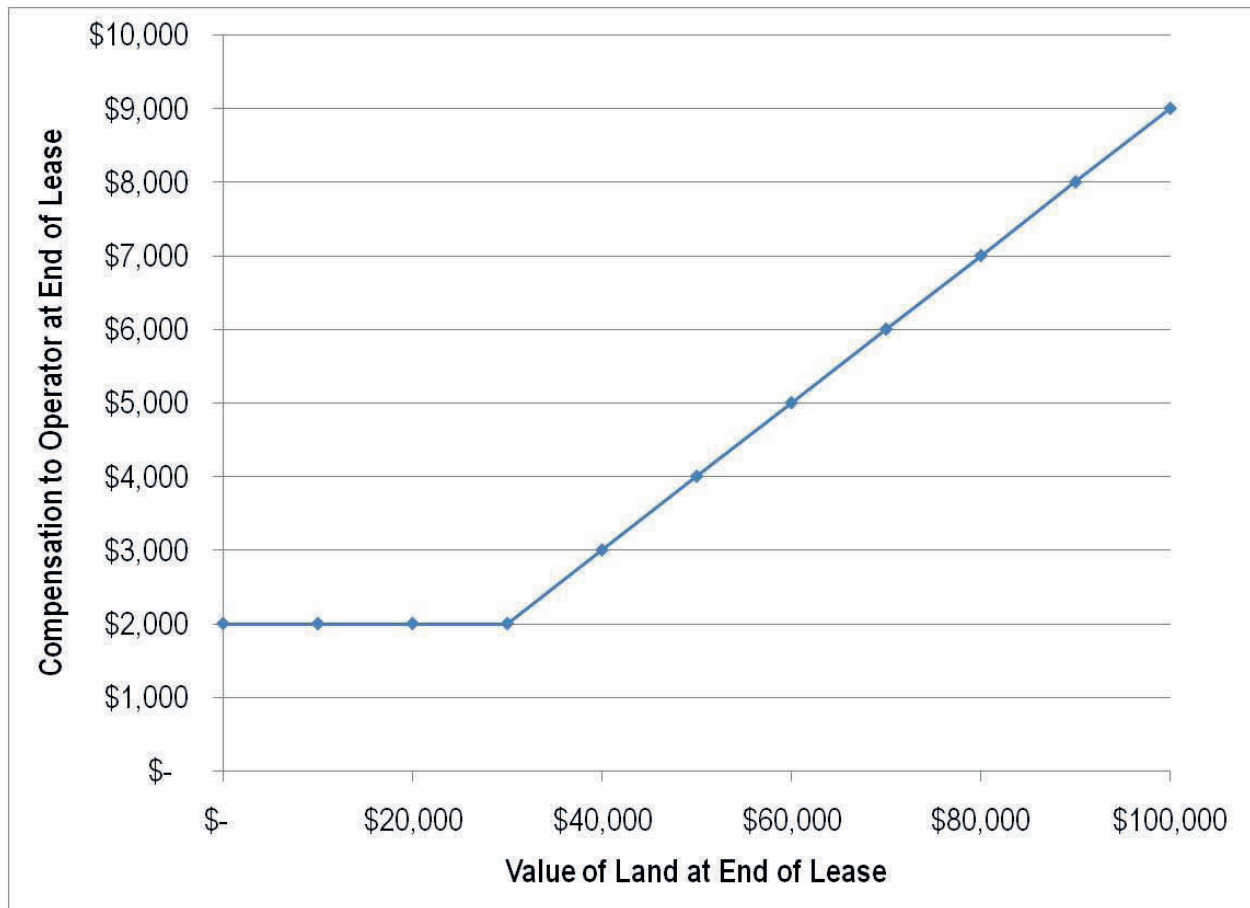
that operator played some part in that increase, but was not solely responsible. Therefore, compensation for the operator should represent some percentage of the difference in land value from before to after his or her urban agriculture work (see Figure 5.3 and Figure 5.4). By providing a mechanism for urban agriculture operators to be compensated for their labors, the RDA will be providing additional incentives for temporary urban agriculture activity, thus increasing the number of prospective operators interested in bidding for the opportunity to operate on its parcels.

Figure 5.3
Illustrative Formula Framework for Compensating Urban Agriculture Operators
Payment to Operator at End of Lease = Max [d*e, c*(b-a)]

Variable	Represents	Comments	Example
a	Value of land at start of lease	Estimated based on hedonic land value model	\$10,000
b	Value of land at end of lease	Estimated based on hedonic land value model and/or on actual transaction price	\$50,000
c	% of increase owed to operator	Represents the proportion of the increase in land value that the operator actually earns; can differ from parcel to parcel, but must be locked into at time of lease agreement	10%
d	Minimum per SF redevelopment fee to operator	Represents a floor payment to the operator, on a per SF basis, no matter how little land value increased	\$1/SF
e	Lot size	In # SF	2,000 (i.e. ~1/20 acre lot)

Source: Econsult Corporation / Penn Institute for Urban Research (2010)

Figure 5.4
Illustrative Compensation Chart for Urban Agriculture Operators
(Using the Sample Numbers from Figure 5.3)



Source: Econsult Corporation / Penn Institute for Urban Research (2010)

7. Develop an informational document that expresses the RDA’s position on urban agriculture and on how the RFP process will proceed.

Transparency and vision are two important elements to the rollout of any new initiative, particularly as it relates to a topic as live and contentious as urban agriculture. Therefore, we recommend that the RDA develop a marketing piece that expresses its position on urban agriculture: how supporting urban agriculture helps it fulfill its economic development mission, where it can and cannot play a useful role (and how that function is intended to simultaneously fulfill its objectives and support the growing demand for urban agriculture activity), and what interested people and organizations can expect if they are interested in doing urban agriculture on RDA land. This piece will outline some of the processes described above, while acknowledging that these represent tentative pilot efforts that will hopefully become more informed and structured over time, even if adjustments need to be made.

8. Provision sites for USDA cooperative efforts to establish model projects in Philadelphia.

Urban agriculture, in addition to being a means to other ends for the RDA, can itself be a worthy end to some degree. While the RDA's organizational focuses should remain on economic development and land use, with urban agriculture strategically deployed as an interim use to stabilize neighborhoods, the urban agriculture activities themselves merit some specific attention. Making the vast majority of its parcel inventory available for temporary urban agriculture will potentially yield a variety of users and uses, and the RDA can, in concert with other public agencies and non-profit entities, monitor "best practices" that emerge from this network of sites. The RDA's burgeoning relationship with the US Department of Agriculture presents an opportunity to fund and explore such a role for such a purpose.

The USDA is enthusiastic about Philadelphia as an exemplar for urban agriculture and a place that could fulfill Secretary Tom Vilsack's motto of "know your food, know your farmer."³⁸ Therefore, in addition to but separate from the recommendations for a program of temporary arrangements for urban agriculture, the RDA, together with other City agencies, should provision sites for USDA cooperative efforts so as to underwrite oversight costs and maximize the identification and dissemination of best practices in urban agriculture, with particular attention to the distributed but connected nature of a network of urban agriculture sites.³⁹ Specifically, within the USDA, the Agricultural Research Service has proposed projects that would include bioremediation, year-round production of high-value crops, water management, and aquaculture, among other possibilities.

³⁸ "Agriculture Secretary Tom Vilsack Announces Nutrition Benefits Increase," USDA Newsroom, 3 April 2009, <http://www.fns.usda.gov/cga/PressReleases/2009/PR-0087.htm>

³⁹ The USDA anticipates the need for a private partner to conduct the actual agricultural work. Consequently, identifying businesses, agencies, or non-profits that could successfully work such a site is as important as identifying the sites. Like in the case of temporary arrangements, matching user with parcel and project is key.

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APPENDIX B – INTENDED OBJECTIVES OF URBAN AGRICULTURE

Figure B.1
Intended Objectives of Urban Agriculture
October 2009 Publication by the University of California at Berkeley
(A Wide Range of Public and Private, and Tangible and Intangible Benefits)

- *Food Production.* Urban agriculture (UA) is the production of food in urban areas. UA consists of more than just community gardens. Several US cities have large urban farms within their boundaries. UA also includes orchard or fruit tree production, small-scale animal raising (including chickens, turkeys, ducks, rabbits, goats, pigs, bees) for milk, honey, and meat production.
- *Green Jobs.* A sustainable local food system is central to a green economy. UA plays a central part in this economy and can provide jobs for youth and adults who are growing, harvesting, distributing, and preparing locally grown food.
- *Environmental Services.* Sustainable urban farming equals environmental stewardship. Urban gardens are rich in biodiversity—soil organisms, beneficial insects, birds, crops, flowers, and trees. Vegetation helps filter and slow runoff. Green waste can be composted and cycled into urban food production instead of landfills.
- *Educational Opportunities.* Urban gardens and farms are an ideal place to teach the public about the food system, science, and the built environment. Urban farmers from diverse cultures hold a wealth of culinary and farming knowledge.
- *Open Space.* Urban gardens and farms are productive open space where the public can experience and enjoy sunshine, biodiversity, and physical activity.
- *Neighborhood Beautification.* Urban gardens are a lush and colorful alternative to vacant lots covered with broken asphalt, overgrown with weeds, or littered with trash.
- *Property Values.* Urban gardens often increase the value of nearby homes.
- *Safer Streets.* Gardens and mini-farms are active public spaces. A greater number of “eyes on the street” can help reduce crime and vandalism.
- *Community Building.* Urban gardens and farms can bring together people of all ages from diverse cultures, serving as a forum for exchange.
- *Civic Participation and Empowerment.* UA often plays a role in community development initiatives. UA provides an opportunity for a neighborhood to organize and define its vision of a healthy, sustainable community. Community members can engage with public officials to ensure that the planning process and implementation stay true to the community’s vision.

Source: University of California at Berkeley (2009)

APPENDIX C – SAMPLE LEASE AGREEMENT FOR TEMPORARY URBAN AGRICULTURE USE: CITY OF MILWAUKEE AND MILWAUKEE URBAN GARDENS

[Between City of Milwaukee and Milwaukee Urban Gardens – some text is boxed in by the Econsult team for emphasis]

THIS AGREEMENT, made and entered into as of this ___ day of _____, 2009, by and between the City of Milwaukee, a public body corporate and politic organized and existing under the laws of the State of Wisconsin, ("Lessor"), and Milwaukee Urban Gardens, Inc. a Wisconsin non-profit corporation, ("Lessee");

WITNESSETH:

Lessor does hereby lease to Lessee the real property at _____, which is legally described in EXHIBIT "A" attached hereto and by this reference incorporated herein, ("Premises") to be used as provided herein. This Agreement is made and entered into by the parties hereto upon the following terms and conditions:

1. Lease Term. The Lease Term shall be for a three-year period commencing on _____, 2009 and ending on _____, 2012 ("Lease Term").

2. Rent. The Lessee agrees to pay to the Lessor an annual rent for the Premises of Twenty Five and No/100ths Dollars (\$25.00), payable by check to "Redevelopment Authority of the City of Milwaukee" on the first day of the Lease Term and on each anniversary of the commencement of the Lease Term, either in person or by mail to:

City of Milwaukee
Attn: Property Manager
809 North Broadway, Milwaukee WI 53202-3617

3. Subleasing and qualifications of Sublessee. Lessee is permitted to sub lease the Premises on an annual basis without prior approval of the Lessor to a neighborhood community group ("Sublessee") that will garden and maintain the Premises. Such Subleases may only be executed on or before May 30 of each year of the Lease Term. Lessee obligations include:

- a. Qualifying Sublessee to ensure that Sublessee has the capacity to plant and maintain the garden.
- b. Entering into a written agreement with Sublessee ("Sublease") that has been approved in advance by Lessor and that requires Sublessee to comply with the terms and obligations of this Agreement except as provided herein.
- c. Maintaining insurance on the Premises as required by Section 11.
- d. Conducting periodic inspections of the Premises to ensure Sublessee is in compliance with this Agreement and Sublease.

- e. Right to terminate a Sublease with thirty (30) days notice to Sublessee upon violation of the Sublease or this Agreement.

If Lessee fails to Sublease the Premises on or before May 30th of any year during the Lease Term, Lessee shall be responsible to install and maintain the garden on the Premises. If a garden is not installed on or before May 30th of any year during the Lease Term, this Agreement may be canceled at the option of the Lessor.

4. Use of the Premises. Lessee shall use the Premises only for the operation of a community garden and greenspace and no other purposes whatsoever and covenants to conduct such activities as follows.

- a. Planting of flowers, trees and/or shrubs is permitted in the existing soil or in raised beds constructed pursuant to Section or in small wooden planters or barrels. Planting in non-standard items, including, but not limited to tires, recycled or repurposed materials, is prohibited.
- b. Planting food crops only if such crops are planted in raised beds constructed pursuant to Section 5.a.
- c. Gardening is permitted only from sunrise to sunset.
- d. Composting is permitted, but only in standard composting bins and/or containers. Non-standard composting containers and composting piles are prohibited.
- e. Clearing garden materials brought onto the Premises and plants growing on the Premises in excess of 12 inches in height from the Premises by the third Sunday in October of each year. Plants that grew in the garden may remain on the premises, but must be cut to not more than 12 inches above ground level.

Prohibited activities on the Premises include:

- a. On-site retail sales of garden or other products.
- b. Application of fertilizers or insecticides that are prohibited under federal or state law
- c. Storage of tools, buckets, watering jugs or other gardening materials in an untidy manner.
- d. Applying; introducing any refuse, unclean fill, contaminated soils, toxic substances or pollutants, and performing any acts that jeopardize or inhibit the use of nearby property. Lessee shall be responsible for remediating any hazards that are caused by, can be traced to or are otherwise attributable to Lessee or Sublessee.
- e. Growing, or permitting to grow, any plant or thing that is contrary to law.
- f. Removal of trees, bushes or shrubs without the prior written authorization of the Lessor.
- g. Vehicle parking unless the Premises have an existing paved parking slab.
- h. Fires.
- i. Nuisances in violation of codes and ordinances of the City of Milwaukee including, but not limited to, excessive noise.
- j. Organized sports activities and use as a dog park.

k. Environmental or geotechnical testing.

5. Improvements. Lessee is permitted install raised garden beds, fencing and landscaping pursuant to the building code ("Improvements"). All plans for Improvements must be submitted to and be approved by the Department of City Development prior to installation. Improvements requirements include:

- a. Raised garden beds for food crops shall be constructed according to the specifications attached as EXHIBIT "B".
- b. Temporary fencing may be placed at the perimeter of the Premises if constructed in a neat and tidy manner with permitted materials. Permitted fencing materials including chain link, coated fence wire, standard fence wood or metal such as wrought iron. Prohibited fencing materials include barbed wire, razor wire, old doors, chicken wire, sheet metal, pallets or plywood. Poured concrete fence anchors are prohibited. Water features such as fountains and ponds, structures, permanent paving, display signage or permanent improvements are prohibited without the permission of the Department of City Development.

6. Routine Maintenance. Lessee shall be solely responsible for routine maintenance and associated expenses of the Premises and Improvements. Maintenance of the Premises shall extend to any abutting public rights of way. The Lessee shall maintain the Premises and Improvements in a clean, safe and attractive manner to standards required by the Municipal Code of the City of Milwaukee. Maintenance shall include, but is not limited to, keeping the Premises free from noxious weeds, litter and other debris, trimming shrubs, mowing grass, raking leaves, shoveling snow and preventing nuisances, hazards and soil erosion.

7. Damage to Improvements. In the event that any Improvements are damaged or destroyed, by any cause, other than routine wear and tear, during the Lease Term, Lessee shall either 1) repair or replace the Improvements within 30 days following said damage or destruction or 2) remove all Improvements from the Premises within thirty days following said damage or destruction. Such repair or replacement shall be undertaken in substantial compliance with the original plans or such other plans as maybe approved by Lessor in writing.

8. Utilities. Lessee shall be solely responsible for the installation and purchase of all utility services at the Premises during the Lease Term.

9. Inspection by Lessee. Lessee has inspected and understands that the Premises are leased on an AS-IS, WHERE-IS BASIS, with all faults and defects, known or unknown, discovered or to be discovered, and with no representations or warranties, express or implied and the Lessor is without obligation to make any alterations, repairs or changes thereto.

10. Inspection by Lessor. Representatives of Lessor, with proper identification, shall be permitted to inspect the Premises at any time.

11. Reports to Lessor. Lessee shall report on or before May 30th of each year of the Lease Term on its Sublease of the Premises or notify Lessor that Lessee will garden the Premises. Lessee shall report on or

before October 30th of each year of the Lease Term on the gardening activities and clean up of the Premises during the past year.

12. Protection of the Premises. Lessee shall at all times exercise due diligence in the protection and use of the Premises and shall be fully responsible and liable for damages to the Premises caused by the Lessee. Lessee will indemnify and save harmless the Lessor from any claim, loss or damage in connection with the use of said Premises.

13. Termination and Vacating. Lessee shall vacate the Premises on or before the expiration of the Lease Term. The Premises shall be returned to Lessor by Lessee in substantially the same condition in which it was received, subject to normal wear and tear. Lessee shall remove all improvements upon vacation of the Premises except upon approval of the Commissioner. In the event that the Lessee fails to vacate the Premises in a timely fashion, Lessor shall (in addition to all other rights and remedies available at law and in equity) have the right to cause the Premises to be vacated and to assess the actual costs of such against the Lessee.

14. Right of First Refusal to Negotiate a New Lease. At the end of the Lease Term, Lessee shall have the right first refusal to negotiate a lease of the Premises for a term of one to three years. Lessee must notify Lessor of its intent to negotiate a new lease no earlier than a date 60 days prior to expiration of the Lease Term, but no later than a date that is 30 days prior to expiration of the Lease Term. Any renewal or extension shall be at the sole discretion of the Lessor and may be subject to the approval of the Common Council of the City of Milwaukee.

15. Indemnification of Lessor and Lessee Insurance

- a. Lessee shall indemnify and hold harmless the Lessor and its respective agents and employees, from and against any and all liabilities, claims, demands, costs and expenses of every kind and nature (including reasonable attorneys' fees), including those arising from any injury or damage to any person (including death) or properly sustained in or about the Premises during the Lease Term (and/or other period of Lessee occupancy) and resulting from the negligence or willful act of Lessee, its employees, agents, servants, invitees, Lessees or subtenants.
- b. Lessor agrees to indemnify and hold harmless Lessee and its agents, employees and Directors from and against any and all liabilities, claims, demands, costs and expenses of every kind and nature (including reasonable attorneys' fees), arising from any injury or damage to any person (including death) or properly sustained in or about the Premises and resulting from the negligence or willful act of the Lessor or its respective employees, agents, servants, invitees, Lessees or Sublessees.

16. Property Insurance. Lessee shall at all times during the term of this Agreement maintain in full force and effect with an insurance company licensed to do business in Wisconsin the insurance according to the limits and conditions described in EXHIBIT "C". Prior to the commencement of Lessee's occupancy of the Premises, and thereafter not less than thirty (30) days prior to the expiration of any such policy, Lessee shall deliver to Lessor copies of such policies or certificates evidencing the same, together with satisfactory evidence of proof of payment of premiums. The policies of insurance required by this Paragraph shall:

- a. name Lessor as additional insured to the extent of Lessee's indemnification obligation as stated in Section 14; and
- b. contain an endorsement requiring thirty (30) days written notice from the insurance company to all named insureds prior to cancellation of the policy or any material reduction in coverage, scope or amount of the policy. Lessee shall deliver to Lessor, before the first day of the Lease Term and on each anniversary of the commencement of the Lease Term, either in person or by mail, copies of policies or certificates of insurance evidencing coverage required by this paragraph.

17. Laws and Insurance Standards. Lessee shall, during the term of this Agreement, at Lessee's sole cost and expense, promptly comply with all laws, ordinances, rules and regulations of all governmental entities, departments and agencies or other public authorities and utilities, thereof having jurisdiction over the Premises. Lessee shall, at Lessee's sole cost and expense, make changes to the Premises that may be required in order to comply with the foregoing. Lessee expressly covenants and agrees to indemnify and save Lessor harmless from any penalties, damages or charges imposed for any violation of any of the covenants herein expressed, whether occasioned by Lessee or any person upon the Premises by virtue of a license or invitation of Lessee or holding or occupying the same or any part thereof under or by right of Lessee.

Lessee shall have no claim against Lessor for any damages should Lessee's use and occupancy of the Premises for the purposes set forth in this Agreement be prohibited or substantially impaired by reason of any law, ordinance or regulation of federal, state, county or municipal government or other public authority.

18. Liens and Claims. Lessee shall not permit to be enforced against the Premises or any part thereof, any mechanic's, material supplier's, contractor's or subcontractor's lien arising from any work of construction, repair, restoration, replacement or improvement to the Premises by Lessee. Lessee shall pay or otherwise cause the removal of any such lien, claim or demand before any action is brought to enforce it against the Premises (or promptly following the commencement of such an action). Lessee shall hold Lessor and the Premises harmless from all liability for all such liens, claims and demands, together with all costs in connection therewith.

19. Property Taxes and Other Charges. Lessee shall pay all taxes levied on its personal property, including personal property owned by Lessee and its agents and kept on the Premises. Lessor shall be responsible for special assessments for public improvements levied against the Premises by the City of Milwaukee or any other governmental entity during the Lease Term. Lessee shall be responsible for any charges of the City of Milwaukee, fines or penalties for the Premises that are certified to the tax roll or billed to the Lessor.

20. Default by Lessee. The occurrence of one or more of the following events shall be an Event of Default under the terms of this Agreement:

- a. Lessee shall be adjudged a bankrupt, or a decree or order, approving as properly filed, a petition or answer asking reorganization of Lessee under Federal Bankruptcy Laws as now or hereafter amended, or under the laws of this State, shall be entered, and any such decree, judgment or order shall not have been vacated, stayed or set aside within sixty (60) days from the date of the entry or granting thereof; or
- b. Lessee shall file or admit the jurisdiction of the court and the material allegations contained in, any petition in bankruptcy, or any petition pursuant or purporting to be pursuant to the Federal Bankruptcy Laws as now or hereafter amended, or Lessee shall institute any proceedings or shall give its consent to the institution of any proceedings for any relief of Lessee under any bankruptcy or insolvency laws or any laws relating to the relief of debtors, readjustment of indebtedness, reorganization, arrangements, composition of evidence; or
- c. Lessee shall make an assignment for the benefit of creditors or shall apply for or consent to the appointment of a receiver for Lessee; or

- d. Lessee shall be delinquent in any payments due under this Agreement required to be made by Lessee hereunder and such delinquency shall continue for ten (10) days after notice thereof in writing to Lessee; or
- e. Lessee shall default in any of the other covenants or agreements herein contained to be kept, observed and performed by Lessee, and such defaults shall continue for thirty (30) days (except as provided below) after notice thereof in writing to Lessee; or
- f. Lessee shall make any assignment, transfer, conveyance or other disposition of its interest in the Premises or under this Agreement without the express prior written consent of Lessor; or
- g. Lessee shall dissolve or institute any proceeding for dissolution, merge into another entity or permit one or more other entities to consolidate or merge into it without the express written consent Lessor; or

Upon occurrence of any one or more of such Events of Default Lessor may, at its election in the manner and terms herein provided, declare this Agreement ended, and to recover possession of the Premises, either with or without process of law to reenter and to expel, and remove Lessee and all agents, employees and representatives of Lessee engaged in operating the Premises or occupying the Premises, using such force as may be necessary in so doing. If default shall be made in any covenants, agreements, conditions or undertakings herein contained, to be observed and performed by Lessee, other than the payment of rent due under this Agreement which cannot with due diligence be cured within a period of thirty (30) days, and if notice thereof in writing shall have been given to Lessee, and if Lessee prior to the expiration of said thirty (30) days from and after the giving of such notice, Commences to eliminate the cause of such default and proceeds diligently and with reasonable dispatch to take all steps and do all work required to cure such default and thereafter does so cure such default then Lessor shall not have the right to declare the term of this Agreement as ended; provided, however, that the curing of any default in such manner shall not be construed to limit or restrict any rights of Lessor, including the right to declare this Agreement ended and terminated, and to enforce all of Lessor's rights and remedies hereunder for any other default not so cured.

21. Assignment and Subletting.

- a. No Transfer Without Lessor's Approval: Except as provided herein, Lessee shall not assign, sublet sell or otherwise transfer any portion of the Premises, or Lessee's interest therein, including this Agreement without the prior written consent of Lessor which consent shall not be unreasonably withheld.
- b. Release of Lessee: 10 the event of any assignment permitted by this paragraph and upon Lessor's written consent to such assignment, Lessee shall be released from all rights and obligations under this Agreement

22. Non-Discrimination. Lessee hereby agrees that in its use of the Premises and in its activities undertaken on the Premises it shall not discriminate or permit discrimination or restriction on the basis of race, sexual orientation, creed, ethnic origin or identity, color, gender, religion, marital status, age, handicap or national origin.

23. Exhibits. The Exhibits attached to this Agreement are incorporated in full by this reference.

24. Compliance with Laws and Orders. Lessee will comply with all laws and orders of the United States and of the State of Wisconsin, all ordinances of City of Milwaukee, and all rules and requirements of the police and fire departments or other municipal authorities of the City of Milwaukee, and will obtain and pay for all necessary permits and licenses, and will not do nor suffer to be done anything on the Premises during the term of this Agreement in violation of any such laws, ordinances, rules or requirements, and if notice is given to Lessee of any such violation on the part of Lessee or of any person employed by or admitted to the said Premises by Lessee, Lessee will immediately desist from or correct such violation.

25. Time of the Essence. It is expressly understood and agreed by the parties hereto that time is of the essence of each term and provision of this Agreement.

26. Waiver. One or more waivers by either party of any covenant or condition of this Agreement shall not be construed as a waiver of a subsequent breach of the same or of any other covenant or condition. The consent or approval given by either party with respect to any act by the other party requiring such consent or approval shall not be deemed to waive or render unnecessary further consent or approval of any subsequent similar act by such party. If either party brings an action for the recovery of any sum due hereunder, or because of the breach of any covenant in this Agreement, or for any other relief against the other party, declaratory or otherwise, arising out of this Agreement, the party in whose favor the judgment is entered shall be entitled to recover from the other party reasonable attorney's fees to be fixed by the court which rendered such judgment, as well as reasonable costs of suit.

27. Modification. This Agreement and the attached Exhibits to which reference is made herein shall be binding upon the parties hereto and their respective successors and assigns and may not be modified orally or in any other manner other than by agreement, in writing, signed by all parties hereto.

28. Governing Law. This Agreement shall be governed by the internal laws of the State of Wisconsin. If any term or provision of this Agreement or any Exhibits hereto, or the application thereof to any person or circumstances, shall to any extent be declared invalid or unenforceable, then the remainder of this Agreement and Exhibits, or the application of such term or provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by applicable law. Lessor expressly retains all rights under Wis. Stat. Section 893.80.

29. Force Majeure. In the event performance of any of its respective covenants, agreements or obligations under this Agreement by either party is prevented, interrupted or delayed by causes beyond its control, including but not restricted to strike, lockout, action of labor unions, riots, storm, flood, explosion, acts of God or of any public enemy, acts of any court or other agency of government, acts of the other party prohibited by this Agreement, acts of others (including the other party) which are necessary for a party's performance hereunder, war, invasion, insurrection, mob violence, sabotage, malicious mischief; inability (notwithstanding good faith and diligent efforts) to procure, or general shortage of labor, equipment, facilities, materials or supplies in the open market, failure of power, failure of transportation, fires, epidemics, quarantine restrictions, freight embargoes, unusually severe weather for Milwaukee, Wisconsin, inability (notwithstanding good faith and diligent efforts) to obtain governmental permits or approvals, or delays of subcontractors due to such causes, and not caused by any act or failure to act by the party hereby delayed in such performance, the date or time or times for the performance of such covenant, agreement or obligations by Lessor or Lessee shall be extended for a period of time equal to the number of days the performance of such covenant, agreement or obligation by Lessor or Lessee is prevented, interrupted or delayed and, in such case, neither Lessor nor Lessee shall be liable for any costs, losses, damages, injuries or liabilities caused to or suffered or incurred by Lessor or Lessee in connection with, or as the result of, any such delay in, or non-performance of, such covenant, agreement or obligation. Except in the case where the proximate cause for such extension is the act or failure to act of the other party, the schedule for performance by such other party shall be extended, by an equal period.

30. Notice. In the event any notice is required to be delivered hereunder, it shall be given in writing, and shall be delivered personally or shall be deposited in the United States mail, postage prepaid, certified or registered, return receipt requested, in which latter event it shall be deemed given five days after the date mailed. Notice to Lessor shall be addressed as follows:

City of Milwaukee
Attn: Property Manager

Department of City Development
809 North Broadway, Milwaukee WI 53202-3617

Notice to Lessee shall be addressed as follows:
Milwaukee Urban Gardens, Inc.
1845 North Farwell Avenue Suite 100, Milwaukee WI 53202

31. Authority of Lessor. Any discretion herein granted to Lessor may be exercised through the Commissioner of the Department of City Development or designee.

32. Consents. Whenever the consent or approval of any party is required under this Agreement, such consent or approval shall not be unreasonably withheld or delayed.

The execution of this Agreement is pursuant to Common Council Resolution 081554 adopted on March 25, 2009.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the date first above written.

MILWAUKEE URBAN GARDENS, INC.

By: _____
Executive Director
Milwaukee Urban Gardens, Inc.

CITY OF MILWAUKEE

By: _____
Special Deputy Commissioner
Department of City Development

APPENDIX D – SAMPLE LEASE AGREEMENT FOR TEMPORARY URBAN AGRICULTURE USE: CITY OF SEATTLE’S P-PATCH PROGRAM

[City of Seattle’s P-Patch Community Garden Program – some text is boxed in by the Econsult team for emphasis]

This is a lease agreement between _____ (Tenant) and _____ (Landlord) for the lease of _____ P-Patch garden plots of approximately 770 square feet in size each for the 2009 season. Access and use shall commence upon completion of this agreement and shall continue until December 1, 2009.

The non-refundable rent for each P-Patch for the entire 2009 season is One Hundred and Ten Dollars (\$110.00) per P-Patch, totaling \$_____, paid via _____. Landlord and Tenant acknowledge the receipt of this payment and these terms either by their signatures below, or through online payment via Google Checkout, which shall also constitute an equivalent formal legal acceptance.

The agreed uses of this garden patch (P-Patch) shall be traditional agricultural crop activities, as defined and limited by Snohomish County Code, with the following additional provisions.

1. Tenant agrees to conduct all on-site activities in keeping with normally accepted organic best practices, as determined by Landlord. This includes the prohibition of use of any toxic pesticides etc. Any additional soil amendments that may be required to grow a particular crop shall be the responsibility of Tenant.
2. No vehicle parking of any sort is permitted anywhere, except for the vehicle that Tenant, guests and subtenants arrived in and only while they are physically on-site. Parking is located adjacent to the leased parcel along the shoulder of 51st Avenue SE. There shall be no parking on the P-Patch.
3. No buildings are permitted to be constructed. For needed equipment and materials storage, a 10' X 20' portable carport is permitted. Also permitted are greenhouses and/or cold frames. All such temporary shelters must be securely tied down against wind damage etc.
4. No visible junk storage, with the characterization of "junk" being at the discretion of Landlord. Tenant agrees to keep their mini-farm parcel in a generally neat and orderly visible fashion.
5. No overnight camping or residence of any sort is permitted. Tenant agrees to conduct activities only during daylight hours and to vacate the premises within one hour of sundown. Should Tenant, sub-tenant or their guests, cause damage to other property or crops, Tenant agrees to pay full restitution to the damaged party at prevailing retail market values.
6. Tenant agrees that there is no city or other water directly provided for crop irrigation purposes. Tenant may utilize rain and/or ground water, with transport and storage of such water to be in a safe manner of Tenant's choosing. Further, there is no electricity provided for any use.

7. Tenant agrees that any violation of the terms of this lease may, at Landlord's discretion, result in eviction of both tenant and all property upon three days notice, with no refund due for any unused portion of the pre-paid rent.
8. Tenant agrees to remove all personal property at the end of this lease and to leave the land in substantially the same condition in which it was found, or as agreed by Landlord. Any remaining property which is not removed shall be subject to claim and/or removal by Landlord. Tenant agrees to pay any reasonable costs for such disposal and/or site remediation.
9. Subleasing and sharing of the P-Patch space is permitted, but Tenant continues to bear full responsibility for any activities that may occur within, or as a result of, their leased space. Tenant hereby indemnifies Landlord against any damages that Tenant, guests and subtenants may cause and further holds Landlord harmless for any damage which Tenant, guests and subtenants may suffer during the period of this lease.
10. Tenant shall have the right to re-lease their P-Patch(s) for the 2010 season (until December 1, 2010) for the same lease price, which shall be paid in full on or before December 1, 2009. Notice of intent to re-lease the parcel must be given by November 1, 2009 or the P-Patch shall become available to lease to another.

Agreed this date, _____, or as paid on the date via Google Checkout.

APPENDIX E – SAMPLE URBAN GARDEN DISTRICT ZONING CODE LANGUAGE: CITY OF CLEVELAND

[from City of Cleveland – some text is boxed in by the Econsult team for emphasis]

PART THREE — ZONING CODE
Title VII — Zoning Code
CHAPTER 336 — URBAN GARDEN DISTRICT
Complete to December 31, 2007

336.01 URBAN GARDEN DISTRICT

The “Urban Garden District” is hereby established as part of the Zoning Code to ensure that urban garden areas are appropriately located and protected to meet needs for local food production, community health, community education, garden-related job training, environmental enhancement, preservation of green space, and community enjoyment on sites for which urban gardens represent the highest and best use for the community.

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

336.02 DEFINITIONS

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

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

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

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

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

336.03 PERMITTED MAIN USES

Only the following main uses shall be permitted in an Urban Garden District:

- (a) community gardens which may have occasional sales of items grown at the site ;
- (b) market gardens, including the sale of crops produced on the site. (Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

336.04 PERMITTED ACCESSORY USES

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

- (a) greenhouses, hoopouses, cold-frames, and similar structures used to extend the growing season;
- (b) open space associated with and intended for use as garden areas;
- (c) signs limited to identification, information and directional signs, including sponsorship information where the sponsorship information is clearly secondary to other permitted information on any particular sign, in conformance with the regulations of Section 336.05;
- (d) benches, bike racks, raised/accessible planting beds, compost bins, picnic tables, seasonal farm stands, fences, garden art, rain barrel systems, chicken coops, beehives, and children's play areas;
- (e) buildings, limited to tool sheds, shade pavilions, barns, rest-room facilities with composting toilets, and planting preparation houses, in conformance with the regulations of Section 336.05;
- (f) off-street parking and walk ways, in conformance with the regulations of Section 336.05. (Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

336.05 SUPPLEMENTAL REGULATIONS

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

- (a) Location. Buildings shall be set back from property lines of a Residential District a minimum distance of five (5) feet.
- (b) Height. No building or other structure shall be greater than twenty-five (25) feet in height.
- (c) Building Coverage. The combined area of all buildings, excluding greenhouses and hoopouses, shall not exceed fifteen percent (15%) of the garden site lot area.
- (d) Parking and Walkways. Off-street parking shall be permitted only for those garden sites exceeding 15,000 square feet in lot area. Such parking shall be limited in size to ten percent (10%) of the garden site lot area and shall be either unpaved or surfaced with gravel or similar loose material or shall be paved with pervious paving material. Walkways shall be unpaved except as necessary to meet the needs of individuals with disabilities.
- (e) Signs. Signs shall not exceed four (4) square feet in area per side and shall not exceed six (6) feet in height.
- (f) Seasonal Farm Stands. Seasonal farm stands shall be removed from the premises or stored inside a building on the premises during that time of the year when the garden is not open for public use.

(g) Fences. Fences shall not exceed six (6) feet in height, shall be at least fifty percent (50%) open if they are taller than four (4) feet, and shall be constructed of wood, chain link, or ornamental metal. For any garden that is 15,000 square feet in area or greater and is in a location that is subject to design review and approval by the City Planning Commission or Landmarks Commission, no fence shall be installed without review by the City Planning Director, on behalf of the Commission, who may confer with a neighborhood design review committee. If one exists, so that best efforts are taken to ensure that the fence is compatible in appearance and placement with the character of nearby properties. (Ord. No. 208-07. Passed 3-5-07, eff. 3-9-07)

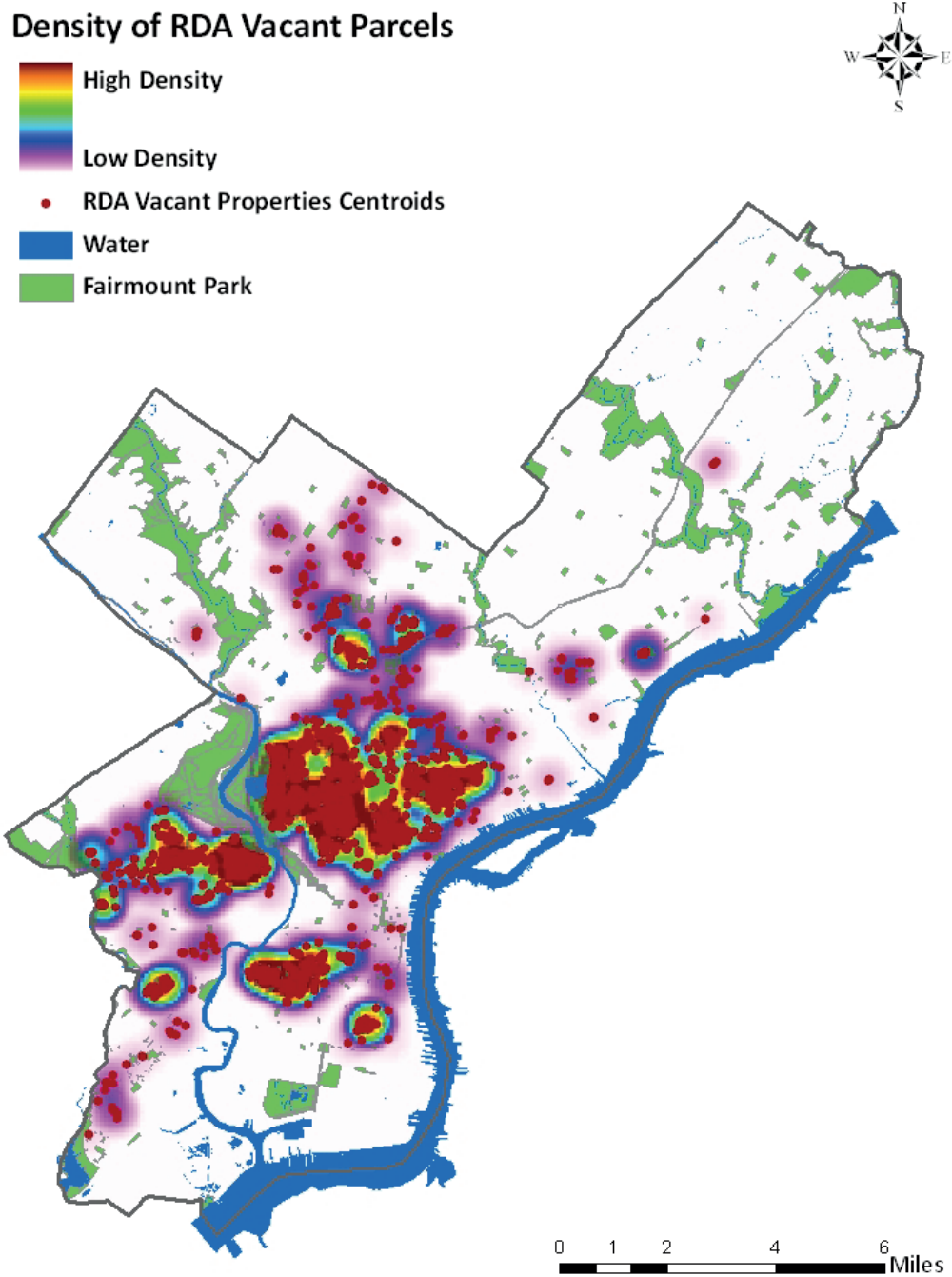
APPENDIX F – NAMES AND LOCATIONS OF MAJOR URBAN FARMS WITHIN THE CITY OF PHILADELPHIA

Urban Farm	Location
Airport Farm	SW Phila
Benjamin Rush Community Gardens	NE Phila
Flat Rock Farm	NW Phila
Fox Chase Farm	NE Phila
Greensgrow Kensington	
Manatawna Farm	NW Phila
Mill Creek Farm	W Phila
MLK High School	N Phila
Saul Agricultural High School	NW Phila
Schuylkill Environmental Center	NW Phila
University City High School	W Phila
Weaver's Way Farm	N Phila

Source: Econsult Corporation (2009), Delaware Valley Regional Planning Commission (2009)

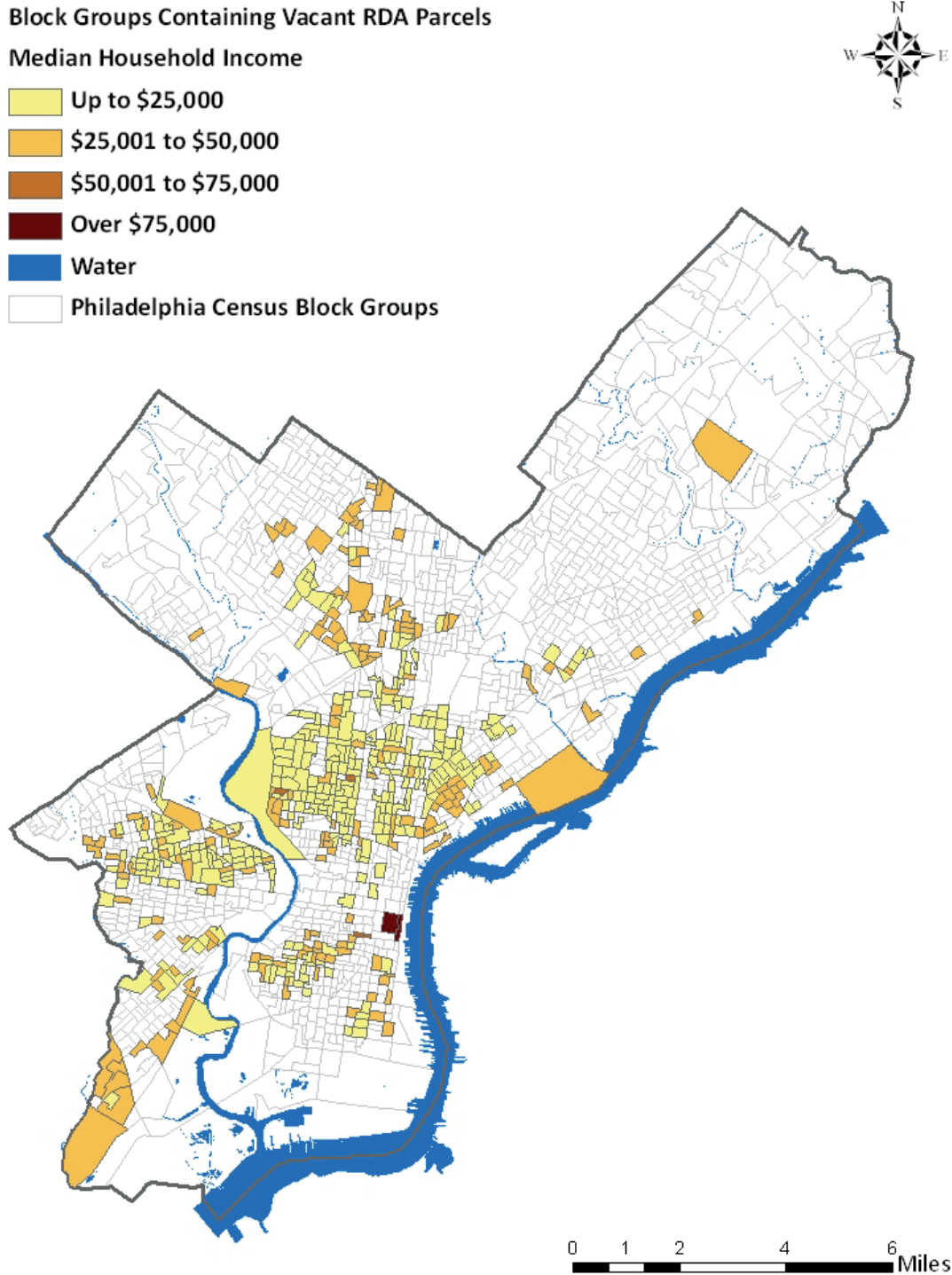
APPENDIX G – SPATIAL DISTRIBUTION OF RDA-CONTROLLED PARCELS

Figure G.1
Distribution of RDA-Controlled Parcels
(Most are Located in North and West Philadelphia)



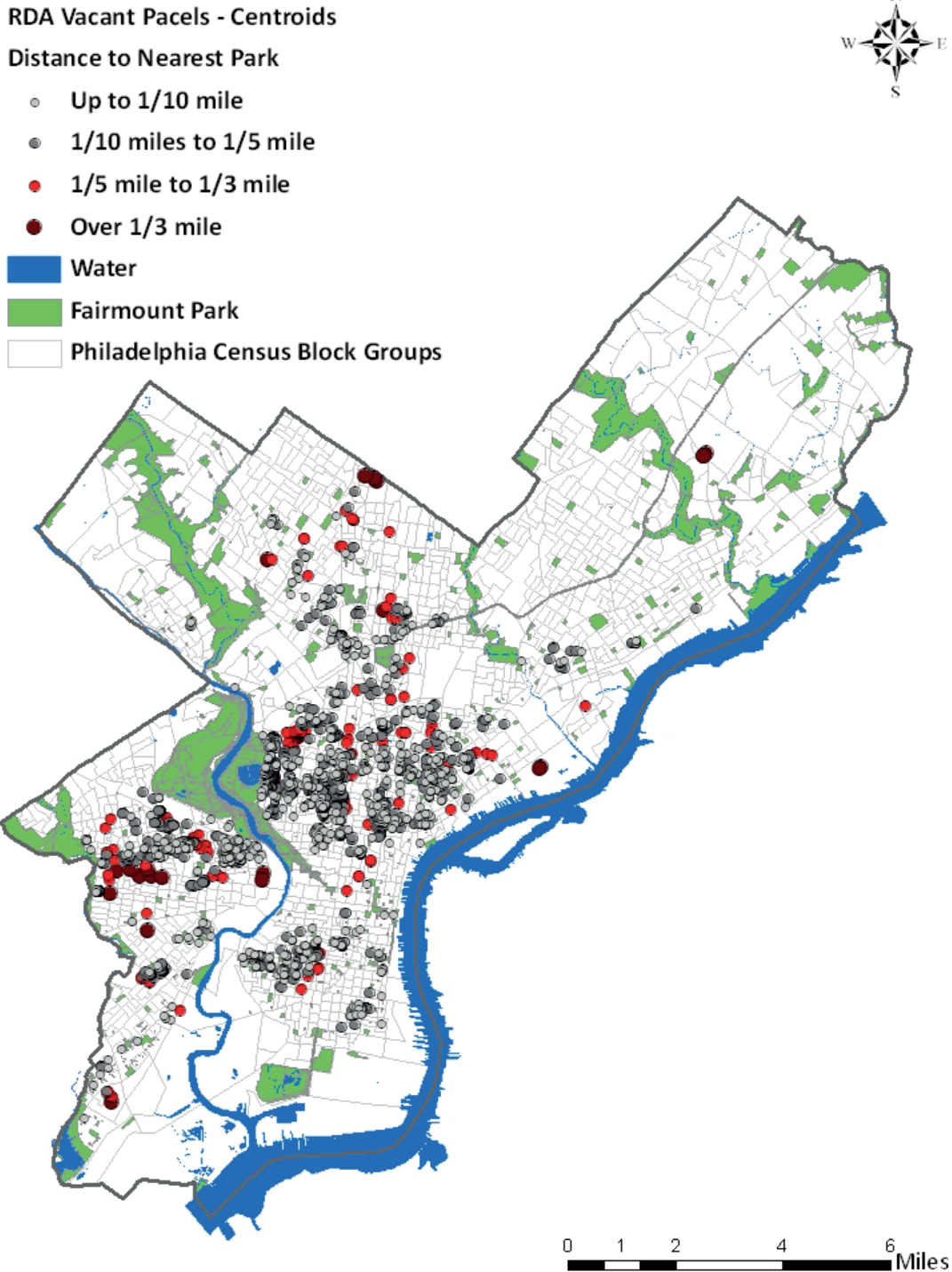
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

Figure G.2
Distribution of RDA-Controlled Parcels, by Household Income
(77 Percent are Located in Census Tracts with Median Household Income of <\$25,000)



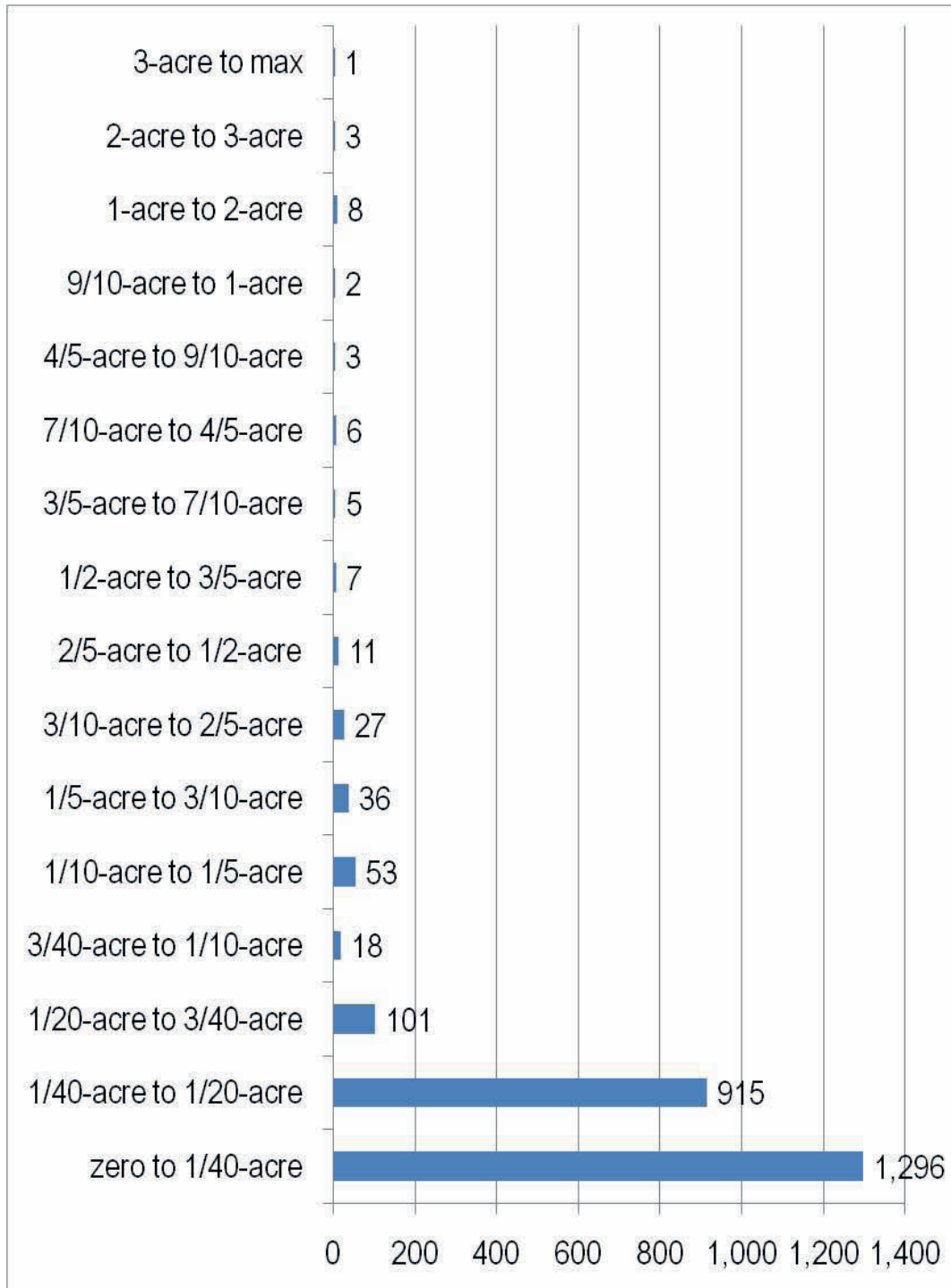
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009), US Census Bureau (2000)

Figure G.3
Distribution of RDA-Controlled Parcels, by Distance to Nearest Park
(91 Percent are in within 1/5 Mile of Fairmount Park Land)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

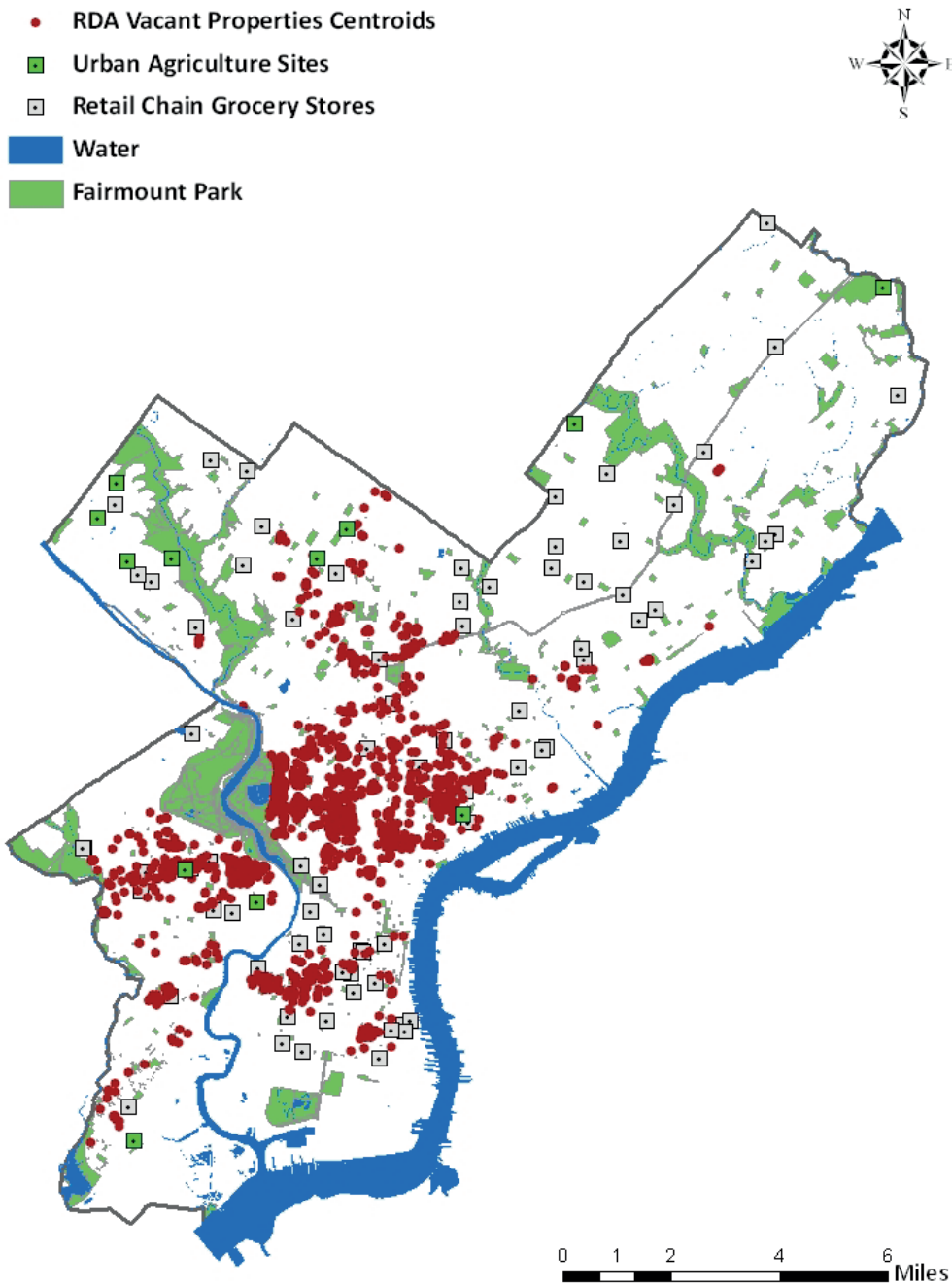
Figure G.4
Distribution of RDA-Controlled Parcels, by Parcel Size
(The Vast Majority are Less Than 1/20th of An Acre)



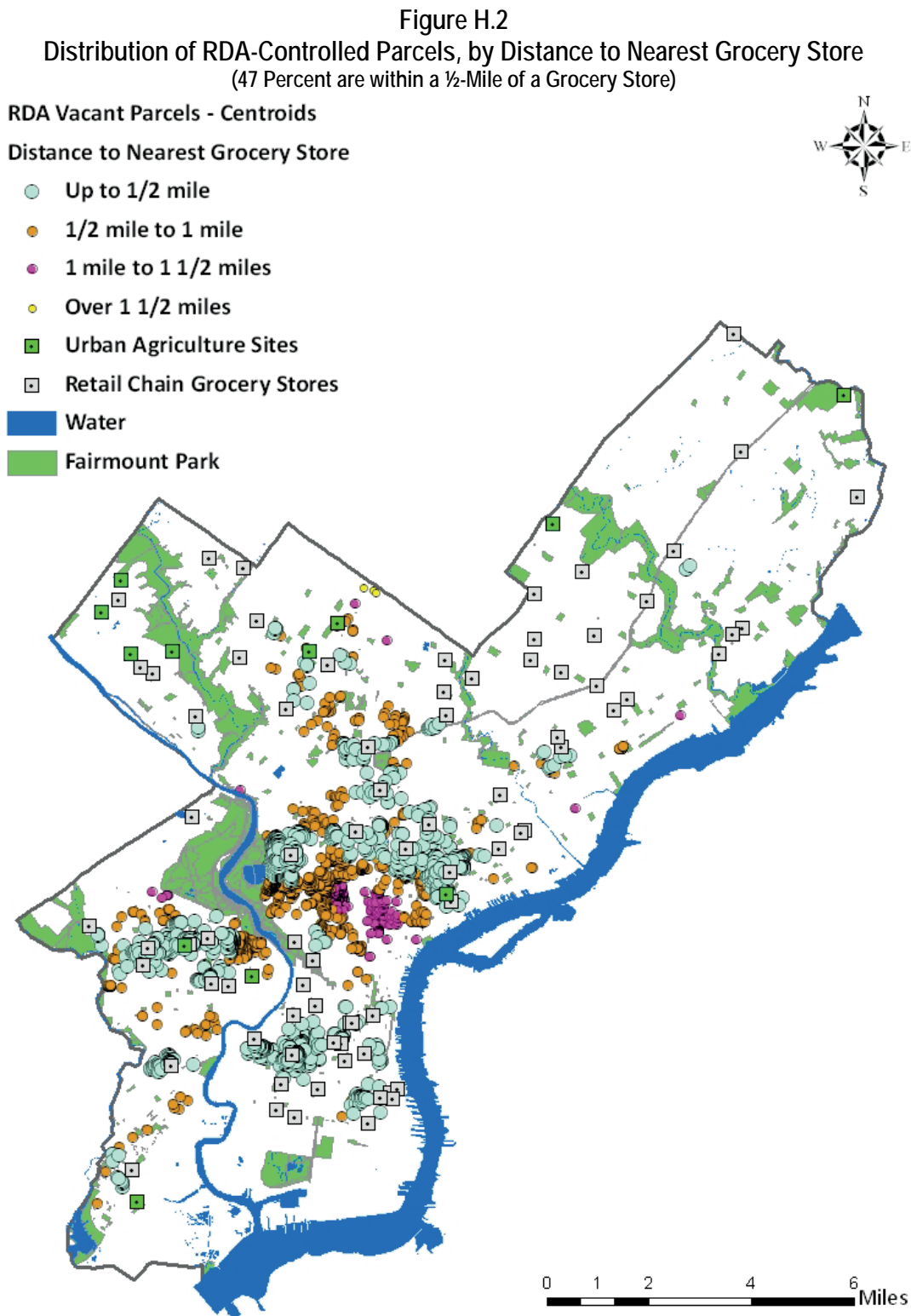
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

APPENDIX H – SPATIAL DISTRIBUTION OF URBAN FARMS

Figure H.1
Distribution of RDA-Controlled Parcels, in Relation to Grocery Stores and Urban Farms

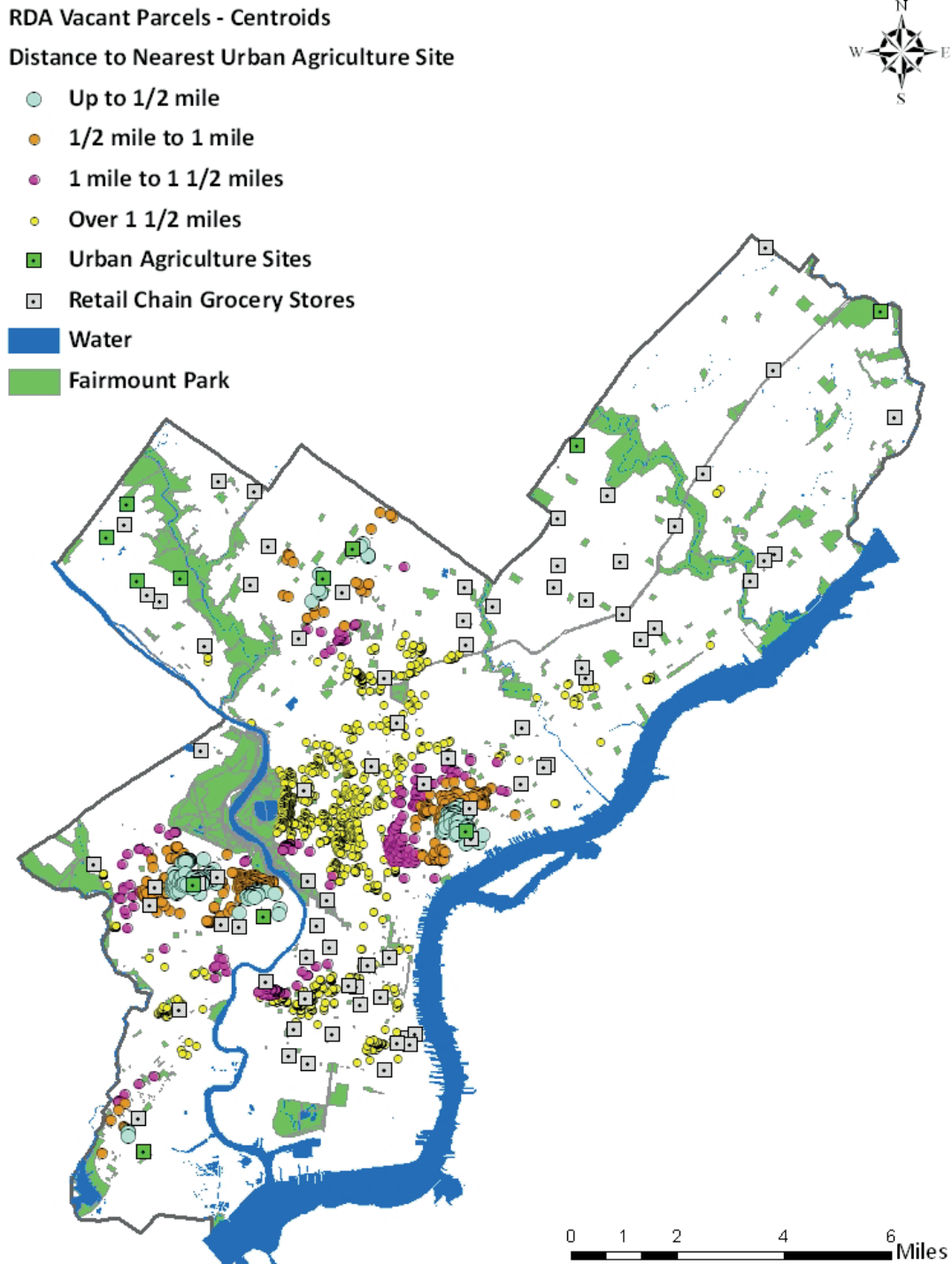


Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009),
Delaware Valley Regional Planning Commission (2009)



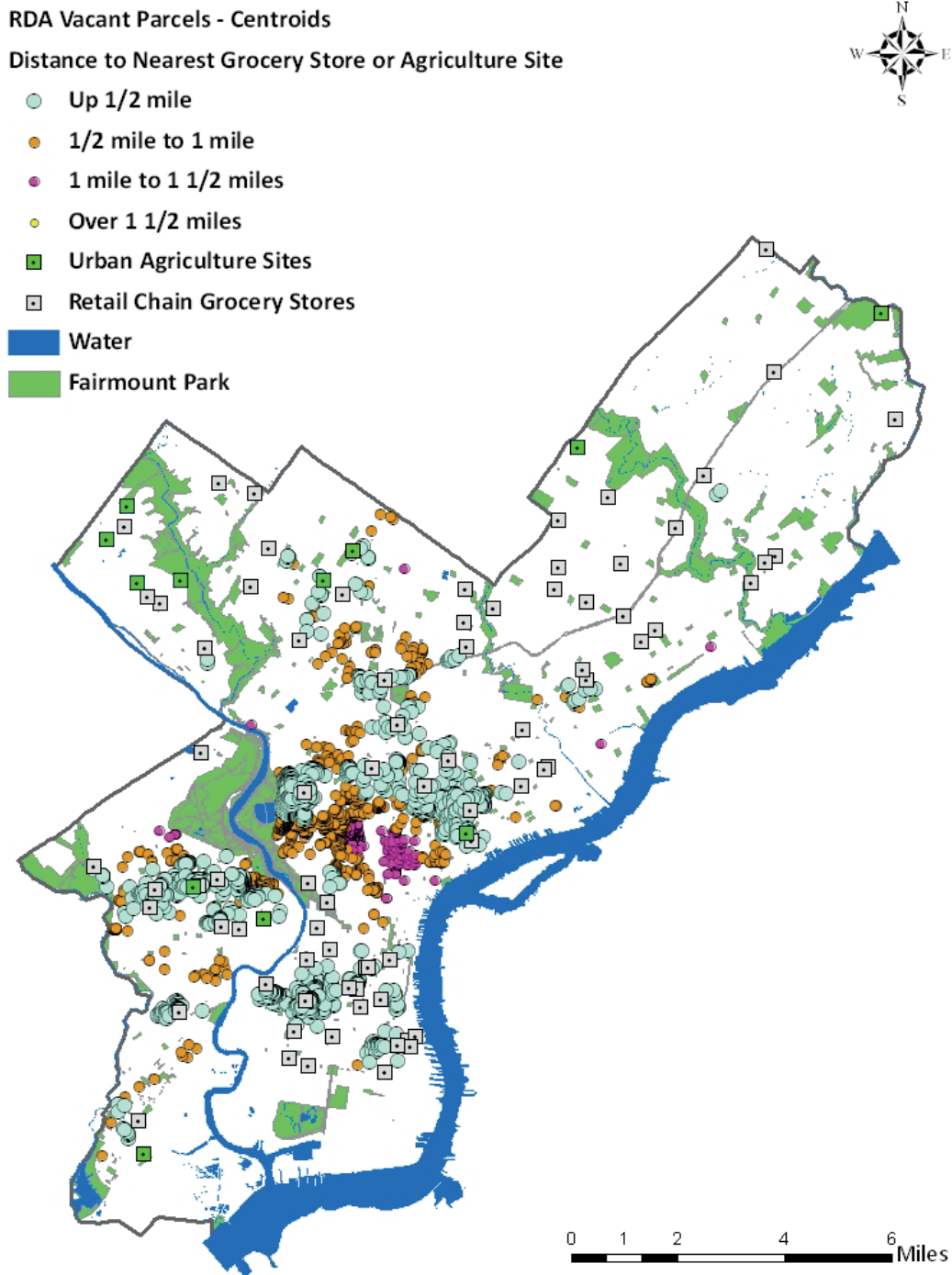
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

Figure H.3
Distribution of RDA-Controlled Parcels, by Distance to Nearest Urban Farm
(27 Percent are within a 1/2-Mile of an Urban Farm)



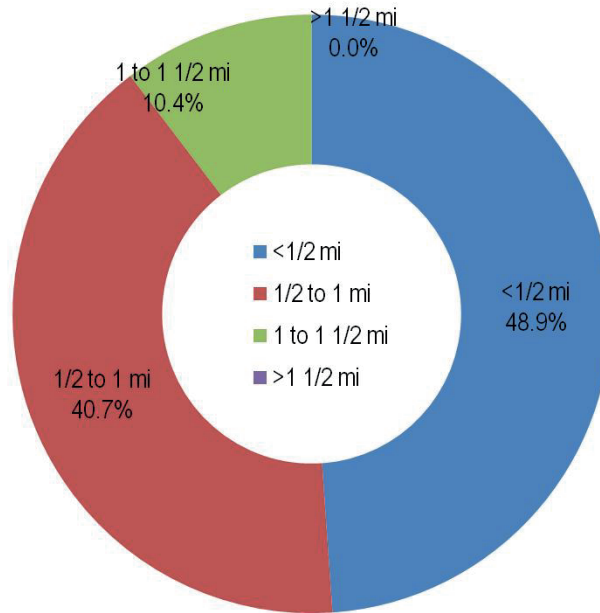
Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009), Delaware Valley Regional Planning Commission (2009)

Figure H.4
Distribution of RDA-Controlled Parcels, by Distance to Nearest Grocery Store or Nearest Urban Farm
(49 Percent are within a 1/2-Mile of a Grocery Store or an Urban Farm)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009), Delaware Valley Regional Planning Commission (2009)

Figure H.5
Distribution of RDA-Controlled Parcels, by Distance to Nearest Grocery Store or Urban Farm
(49 Percent are within a 1/2-Mile of a Grocery Store or Urban Farm)



Source: Econsult Corporation (2010), Philadelphia Redevelopment Authority (2009)

APPENDIX I – DISTRIBUTION OF BENEFITS FROM URBAN AGRICULTURE

In the case of parcels controlled by the Philadelphia Redevelopment Authority, the benefits of urban agriculture can be thought of as accruing to three groups (see Figure I.1):

- *To the public sector.* The RDA itself enjoys the proceeds of any sales or leases to urban agriculture operators. To the extent that urban agriculture sites stabilize neighborhoods and enhance nearby property values, the City may enjoy an improved tax base and higher property tax revenues. Also, if urban agriculture helps combat obesity, improve nutrition, and provide active recreational outlets, the City may end up bearing lower health costs over time. Finally, supporting urban agriculture may engender positive publicity for the City, given urban agriculture's current popularity.
- *To the private operator.* The urban agriculture operator may benefit from his or her venture in one or both of two ways. If the venture is commercially successful, the operator may generate a profit. Furthermore, the operator may derive personal enjoyment from operating the urban agriculture site.
- *To the general public.* Urban agriculture has many potential spillover benefits to the general public, and many of these spillover benefits or positive externalities intersect with priority objectives among City agencies and the overall Administration, as discussed in Section 2.

Figure I.1
Distribution of Enjoyment of Potential Benefits from Urban Agriculture
between the City, Private Operators, and the General Public
 (Gains Range from the Quantifiable to the Qualitative and from the Immediate to the Long-Term)

City	Quantifiable	Qualitative
Immediate	<ul style="list-style-type: none"> • Proceeds from sale or lease 	<ul style="list-style-type: none"> • Positive publicity based on current popularity of urban agriculture
Long-Term	<ul style="list-style-type: none"> • Improved tax base • Increased property tax revenues • Reduced health costs 	<ul style="list-style-type: none"> • Enhanced reputation as a progressive and “green”-oriented municipality
Private Operators	Quantifiable	Qualitative
Immediate	<ul style="list-style-type: none"> • Profits from the operation 	<ul style="list-style-type: none"> • Personal enjoyment from the operation
Long-Term	<ul style="list-style-type: none"> • Profits from the operation 	<ul style="list-style-type: none"> • Personal enjoyment from the operation
General Public	Quantifiable	Qualitative
Immediate	<ul style="list-style-type: none"> • Enhanced food production • Green jobs 	<ul style="list-style-type: none"> • Educational opportunities • Open space • Neighborhood beautification
Long-Term	<ul style="list-style-type: none"> • Enhanced property values 	<ul style="list-style-type: none"> • Environmental services • Safer streets • Community building • Civic participation and empowerment

Source: Econsult Corporation (2009), University of California at Berkeley (2009)

APPENDIX J – LAND VALUATION METHODOLOGY

The land valuation model developed for the City of Philadelphia Redevelopment Authority (RDA) portfolio of vacant parcel holdings is a hedonic regression that used all arms-length transactions of land in Philadelphia from 2008 to Q1 2010. The data was provided by merging deed title transfers from the City's Department of Records with tax roll data from the Board of Revision of Taxes (BRT). It includes detailed information on the terms of sale, plus the characteristics of each parcel, including sale date, sale price, buyer, seller, address, lot size, lot shape, lot slope and tax status.

The data was carefully screened and cleaned to remove non-arms-length sales, such as transactions between family members and transactions where the buyer and/or seller was a state or federal government agency or bank.⁴⁰ In addition, observations with missing or implausible characteristics were also dropped.

From the original dataset of nearly 2,800 transactions, 1,540 met the criteria of being arms-length transactions with complete and accurate data, and were used in the estimation of the regression model. The dependent variable in the model is the natural log of price divided by the square footage of the lot (see Figure J.1).⁴¹

Figure J.1 – Hedonic Analysis of Land Sales in Philadelphia, 2008 to Q1 2010

N=1,540, Adj. R-sq.=.7077, Method=OLS

Variable	Description	Coeff. Est.	S.E.	t Value	Pr > t
Intercept		4.18291	0.1654	25.29	<.0001
dist_cbd	distance to City Hall (mi.)	-0.72753	0.14493	-5.02	<.0001
dist_cbd_sq	dist_cbd ²	0.17688	0.04155	4.26	<.0001
dist_cbd_cubed	dist_cbd ³	-0.01337	0.0045	-2.97	0.0031
dist_cbd_quart	dist_cbd ⁴	0.00030048	0.000159	1.89	0.0595
ltsqft_dist	lot_sqft*dist_cbd	-0.00000333	7.88E-07	-4.22	<.0001
ltsqft_dist_sq	ltsqft_dist ²	8.20E-13	1.83E-13	4.48	<.0001
dist_corr	distance to nearest comm. Corr.	-0.10411	0.04544	-2.29	0.0221
Lot_Sqft	lot square feet	0.00000424	3.51E-06	1.21	0.2282

⁴⁰ Since so many transactions were blanket sales involving multiple properties changing hands for a single blanket price, we were reluctant to drop them, since it would significantly reduce our sample size. Instead, we computed the average price per square foot of blanket transactions by dividing the recorded blanket price by the total square footage of the parcels that transacted.

⁴¹ By using the natural log of price, rather than price itself, as the dependent variable, the coefficients have the interpretation of being the percent change, rather than dollar change, in the price of residential land as a result of a change in the independent variables. This makes the valuation less sensitive to price inflation (or deflation) over time, which certainly occurred during the 2008-2010 period.

N=1,540, Adj. R-sq.=.7077, Method=OLS

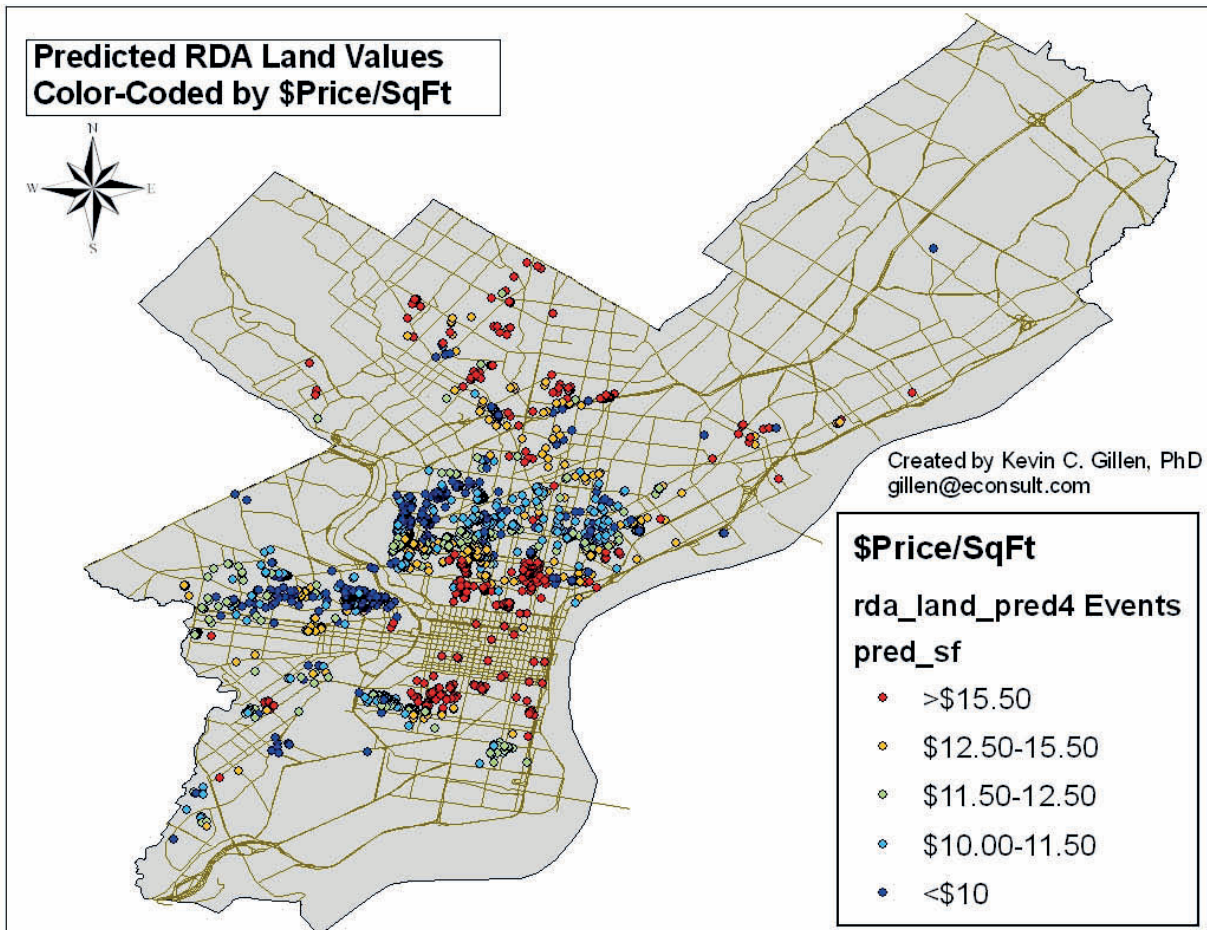
Variable	Description	Coeff. Est.	S.E.	t Value	Pr > t
frontage	frontage of lot (feet)	-0.00000498	2.62E-06	-1.9	0.0579
depth	depth of lot (feet)	0.00010204	5.14E-05	1.98	0.0474
large_lot	dummy if lot>1 acre	-0.1881	0.05191	-3.62	0.0003
corner_dum	dummy if lot on corner	-0.07419	0.1236	-0.6	0.5484
irregular	dummy if lot irregularly shaped	0.08899	0.05383	1.65	0.0985
above_street	dummy if lot above street grade	-0.37934	0.13882	-2.73	0.0064
view_dum	dummy if lot has a view	-0.61209	0.16677	-3.67	0.0003
xmpt	dummy if parcel is tax exempt	0.29944	0.09628	3.11	0.0019
parking_lot	dummy if zoned as parking lot.	-0.4495	0.08875	-5.06	<.0001
commercial	dummy if zoned commercial	-0.05657	0.09042	-0.63	0.5317
industrial	dummy if zoned industrial	-0.47604	0.11049	-4.31	<.0001
spec_flag	dummy if speculative sale	-0.33206	0.05581	-5.95	<.0001
RDA_sell RDA	grantor	-0.91302	0.10742	-8.5	<.0001
PHA_sell PHA	grantor	0.20392	0.15372	1.33	0.1849
PAID_sell PAID	grantor	1.52025	0.36351	4.18	<.0001
PHDC_sell PHDC	grantor	-0.41151	0.20077	-2.05	0.0406
CITY_sell	Other City agency grantor	-1.48568	0.27885	-5.33	<.0001
PIDC_sell PIDC	grantor	-1.85717	0.25493	-7.28	<.0001
PHDC_buy PHDC	grantee	-2.43772	0.24479	-9.96	<.0001
fam_flag inter-family	transfer	-1.0141	0.13181	-7.69	<.0001
num_sales_qtr_mi2	# land sales within 1/4 mile	-0.00067848	0.000406	-1.67	0.0951
avg_pricesf2	avg land value/sf within 1/4 mile	0.00802	0.000327	24.5	<.0001
sd_pricesf2	std dev of land value/sf within 1/4 mile	-0.00224	0.000441	-5.08	<.0001
year_2008	dummy if sale was in 2008	0.06476	0.05707	1.13	0.2567
year_2009	dummy if sale was in 2009	0.01286	0.05734	0.22	0.8226

Source: Econsult Corporation (2010), Board of Revision of Taxes (2009)

The R-squared of the model is 71 per cent, which indicates that 71 percent of the variation in land values in the City is explained by this model (100 percent indicates a perfect regression). This is a rather high R-squared for a land value regression, because land is considered the most difficult category of real estate to value (its true value is a function of its highest and best use, which is a subjective opinion), and also because the market for urban land is generally thin, non-transparent, and subject to great variation. In addition, almost all of the variables in the model meet the criteria of “statistical significance,” having t-values exceeding 1.64. This indicates that these variables are meaningful explanatory variables in determining land values, and hence contribute to the model’s predictive power.

The valuation model is applied to any parcel in the RDA's inventory of land holdings by inserting that parcel's characteristics into the equation, multiplying by each coefficient, and summing to obtain the predicted price per square foot for a particular parcel. This calculation can be performed for all properties in the RDA's inventory (see Figure J.2, as well as Appendix K and Appendix L).

Figure J.3
Predicted Land Price per Square Foot for RDA-Controlled Parcels as of December 2009,
Based on Hedonic Analysis of Single-Family Home Sales in Philadelphia, 2008 to Q1 2010



Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

APPENDIX K – SPATIAL DISTRIBUTION OF ESTIMATED LAND VALUES FOR RDA PARCELS

Once a land valuation model has been constructed (see Appendix D), the model can be used to estimate values for each of the properties under the control of the Philadelphia Redevelopment Authority (RDA). For each such property, its characteristics were entered into the regression model and predicted prices per square foot (each parcel's characteristics multiplied by the corresponding coefficient) as well as predicted price per parcel (each parcel's predicted price per square foot multiplied by the square footage of each parcel) were calculated (see Figure K.1 and Figure K.2). Because the RDA's inventory of parcels is overwhelmingly in low-income neighborhoods in North and West Philadelphia, values on a per square foot basis are lower than land values per square foot for the City as a whole, and there is less variation in these values among the RDA parcels than among parcels within the City as a whole (see Figure K.3). Notably, only 12 RDA parcels are larger than ½ acre (see Figure K.4). The total value of the entire inventory of over 2,500 RDA parcels is estimated to be approximately \$116 million, with the top 10 percent by value comprising 72 percent of that aggregate value (see Figure K.5).

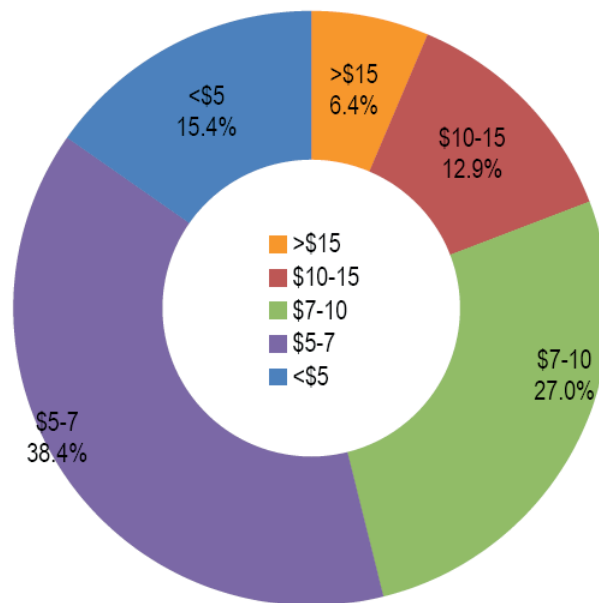
Figure K.1

Distribution of Predicted Land Price per Square Foot for RDA-Controlled Parcels as of December 2009, Based on Hedonic Analysis of Single-Family Home Sales in Philadelphia, 2008 to Q1 2010

	# RDA Parcels	Median Lot SF	Median \$/SF	Median Price
\$0-\$10/SF	537	1217	\$8.49	\$10,000
\$10-\$11.5/SF	427	974	\$10.83	\$10,886
\$11.5-\$12.5/SF	497	958	\$11.95	\$11,756
\$12.5-\$15.5/SF	497	1098	\$13.45	\$15,355
\$15.5-\$275/SF	534	1069	\$19.07	\$22,485

Source: Econsult Corporation (2010), Board of Revision of Taxes (2010), Philadelphia Redevelopment Authority (2009)

Figure K.2
Distribution of Predicted Land Price per Square Foot for RDA-Controlled Parcels
 (59 Percent are Estimated to Have a Market Value of Less Than \$12.50 per Square Foot)



Source: Econsult Corporation (2010), Board of Revision of Taxes (2009), Philadelphia Redevelopment Authority (2009)

Figure K.3
Distribution of RDA-Controlled Parcels, by Lot Size and Real Estate Sub-Market
 (89 Percent are 1/20-Acre or Less, and 75 Percent are in North Philadelphia or West Philadelphia)

	Center City / Fairmount	Kensington -Frankford	Lower NE Phila.	North Phila.	NW Phila.	South Phila.	Univ. City	Upper NE Phila.	West Phila.	Grand Total			
<1/40 acre	1.6%	4.8%	0.2%	%	28.5%	0.0%	9.3%	0.4%	0.0%	% 7.2	%	52.0%	
1/40-1/20 acre	1.3%	2.5%	0.4%	%	21.5%	0.0%	1.3%	0.6%	0.0%	% 9.4	%	36.9%	
1/20-1/10 acre	0.3%	0.4%	0.0%	%	2.3%	0.0%	%	0.0%	0.0%	% 1.5	%	4.7%	
1/10-1/2 acre	0.2%	0.4%	0.0%	%	2.2%	0.0%	%	0.2%	0.1%	0.1%	% 1.8	%	5.0%
1/2-3 acre	0.1%	0.0%	0.0%	%	0.5%	0.1%	%	0.0%	0.0%	% 0.6	%	1.3%	
Grand Total	3.5%	8.0%	0.6%	55.0%	%	0.2%	10.9%	1.1%	%	0.1%	20.5%	100.0%	

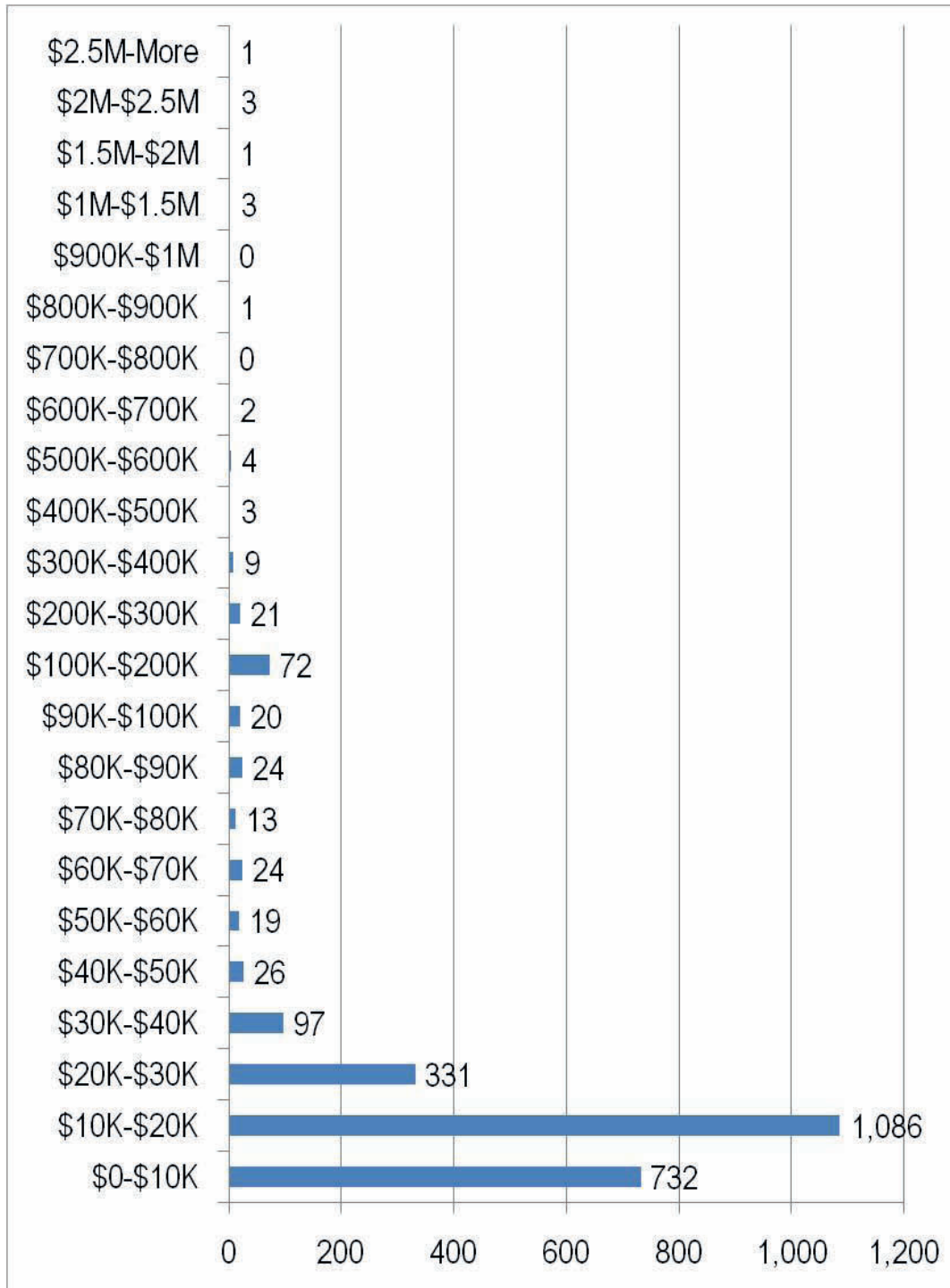
Source: Econsult Corporation (2010), Board of Revision of Taxes (2009), Philadelphia Redevelopment Authority (2009)

Figure K.4
RDA-Controlled Parcels that Have Lot Sizes of One Acre or Larger
 (12 Out of 2,500 Parcels)

RDA Address	Submarket	# Acres	Pred Price	Pred \$/SF
212-48 N 08th St	CenterCity/Fairmount	3.28	\$39,269,725	\$275.00
901-47 N 08th St	North Phila.	2.71	\$1,938,185	\$16.41
3301-61 N Lawrence St	North Phila.	2.42	\$264,418	\$2.51
8601 Cheney Pl	West Phila.	2.32	\$331,994	\$3.29
5100 Westminster Ave	West Phila.	2.00	\$283,604	\$3.26
2628 W Fletcher St	North Phila.	1.62	\$671,178	\$9.51
4314-26 Ridge Ave	NW Phila.	1.53	\$829,783	\$12.48
1734 N Uber St	North Phila.	1.27	\$532,446	\$9.59
3030 N 20th St	North Phila.	1.24	\$244,699	\$4.52
4635-37 W Girard Ave	West Phila.	1.24	\$283,662	\$5.24
5111-13 Westminster Ave	West Phila.	1.19	\$242,376	\$4.66
622 N 18th St	CenterCity/Fairmount	1.15	\$1,127,005	\$22.47

Source: Econsult Corporation (2010), Board of Revision of Taxes (2009), Philadelphia Redevelopment Authority (2009)

Figure K.5
Distribution of RDA-Controlled Parcels, by Estimated Value
 (The Vast Majority are Valued at Under \$20,000)



Source: Econsult Corporation (2010), Board of Revision of Taxes (2009), Philadelphia Redevelopment Authority (2009)

APPENDIX L – ESTIMATED LAND VALUES FOR ALL RDA PARCELS

See attached.