

Vitalizing the Vacant

The Logistics and Benefits Of Middle- to Large-Scale
Agricultural Production on Urban Land.

By Annie Myers

May 2008
CP252, Professor Fred Etzel
University of California, Berkeley
Department of Urban and Regional Planning

TABLE OF CONTENTS

Introduction	1
General Overview	3
Goals & Benefits of Urban Farms	
• Health	4
• Education	5
• Environment	5
• Economy	6
Six Farms, Six Cities	7
• Zenger Farm: Portland, Oregon	7
• Somerton Tanks Farm: Philadelphia, Pennsylvania	12
• Troy Gardens Community Farm: Madison, Wisconsin	17
• Wood Street Urban Farm: Chicago, Illinois	21
• Red Hook Community Farm: Brooklyn, New York	24
• Alemany Farm: San Francisco, California	27
Conclusions	29
Bibliography	33
Appendix: Troy Gardens Site Plan	35

INTRODUCTION

The following study considers the logistics and benefits of putting urban land into agricultural use, and highlights six farms all located within the urban boundaries of major American cities. For decades, community and backyard gardens have been a source of fresh produce for America's city dwellers. During World War II, the government encouraged the country to plant *Victory Gardens*, and 20 million Americans produced over 40% of the produce consumed nationally.¹ Since the mid-1990s, the increasingly detrimental effects of industrial agriculture upon environmental and human health have come to the attention of US consumers. Urban populations across the country have begun to demand access to affordable, nutritious, chemical-free foods, grown by trustworthy farmers, within one to two hundred miles from their homes. Urban planners have learned to design spaces for farmers markets and other venues where fresh, regionally grown produce can be sold, and to incorporate these designs into their city plans. In fact, the number of farmers markets in the US has increased an average of 20% every year since 1994.² More than a few city dwellers, however, have increased their access to clean, healthy foods in a way that is yet more resourceful, hands-on, and close to home. *Urban farms* are gaining ground in cities across the country. The following study was compiled to provide planners with six existing models of these farms, and to aid in the development of urban plans that prioritize urban food production.

For the purposes of this report, an *urban farm* is considered to be one or more sites within the urban growth boundary of a city, where the soil is cultivated for edible plants, and where the food produced is shared (whether for-profit or not, by sales or donation) with individuals other than the farmers themselves. The existing sites currently

known as urban farms usually occupy a total of at least 1/4 acre (or 10,890 ft²) and have established a formal food distribution system, often selling through a CSA*, at farmers markets, and to local restaurants. An urban farm is an organized, productive, stable operation, and often serves a large community through education, job-training, and other activities.

In 2007, the American Planning Association adopted the *Policy Guide on Community and Regional Food Planning*. While acknowledging that today's industrial food system** "contributes nearly \$1 trillion to the national economy and employs 17% of the labor force," the Policy Guide points out several disadvantages of this system. Increased concentration of ownership and vertical integration have resulted in the closure of many grocery stores, the reduction of residents' access to healthy food, a decrease in tax base and employment, and the "increased consolidation of different activities such as food production, processing, and distribution under the control of single entities." The Policy Guide highlights the effect of a food system upon the economy, health, ecological systems, social equity, and native and ethnic food cultures of any community. It suggests recognizing "community gardens and other forms of urban agriculture" in comprehensive and neighborhood plans, and "ensuring that zoning barriers to these activities are addressed or removed." The Guide goes on to suggest planners "encourage mixed-use neighborhood design and redevelopment to include....open space and related infrastructure for community vegetable gardens to allow residents to grow their own food," and "on public lands...support the development of vegetable gardens, edible

* Community Supported Agriculture, or CSA, is a relationship of mutual support and commitment between local farmers and community members who pay the farmer an annual membership fee to cover the production costs of the farm. In turn, members receive a weekly share of the harvest during the local growing season. (Robyn Van En Center).

** A food system comprises the interdependent and linked activities that result in the production and exchange of food. These include farming, processing, storage, distribution, and transportation, as well as food access, cooking, food preservation, and food recycling. (World Hunger Year).

landscaping, and related infrastructure.” The Guide points out that farming on vacant urban lots is a form of small business development, and a way for many households to supplement income and achieve economic stability.³

GENERAL OVERVIEW

The six farms highlighted in this study are each located in a different urban area, and vary greatly in size, origin, organization, and stability. Each farm has a different relationship with the local city planners and politicians, and a different story behind the access to the land they have gained. The following pages will summarize the histories of these farms, and highlight a few of the common achievements and difficulties in the operations of each farm. These are commonalities from which planners may learn, and which they must recognize, to incorporate urban farms into today’s urban planning.

The urban farms described in this study contribute in a significant way to the *health, education, environment* and *economy* of their local communities. The farms share several major goals that shape this contribution. These goals include:

- Improving community health by providing access to fresh, nutritious produce.
- Educating the community, particularly youth, with hands-on gardening and cooking workshops.
- Maximizing the environmental efficiency of local food consumption by
 - Using organic methods of cultivation.
 - Growing food in the vicinity of a densely populated area.
- Preserving and enhancing the soil quality of vacant land.

Other goals, shared by many but not all the farms, include:

- Providing employment opportunities for the local community.
- Providing healthy foods to low-income community members, by
 - Accepting EBT, WIC, and FMNP coupons, and
 - Selling food on a sliding scale.

Health

Urban agriculture has a particularly important role in affecting communities with high rates of diet-related health problems. These problems are prevalent in “food deserts,” or areas with no or distant grocery stores and many more nearby fast food, convenience stores, and liquor stores.⁴ Studies have shown that communities living in food deserts suffer higher rates of obesity, diabetes, and heart disease.⁵ Both the food and education provided by urban farms can have a huge positive impact on a community’s diet. Urban farms, particularly within areas classified as food deserts, can empower the immediate community with the knowledge that they have the right to nutritious, affordable foods, and with the know-how to grow, cook, and consume the foods that contribute to their health.

Fortunately, these health benefits are not contingent upon urban farms feeding entire communities, but more upon the farm offering health education and exposure to nutritious dietary options. Urban farms have the potential to feed only a small percentage of most urban populations. The yield of a particular parcel of land varies greatly depending on quality of soil, climate, the length of the growing season and the farming methods implemented. According to Ecology Action’s Executive Director John Jeavons, GROW BIOINTENSIVE farming techniques can result in the following estimated yields, and thus feed the corresponding number of individuals:

<i>Land</i>	<i>Yields</i>	<i>Enough Vegetables to Annually Feed</i>
4000 ft ² (0.09 acre)	1100 lbs.	1 person
1 acre (43, 560 ft ²)	15,000 lbs.	10-12 people

According to Jeavons, the average U.S. diet requires 15,000-30,000 ft² of land, if farmed using conventional, mechanized, chemical or organic techniques, depending upon whether (or to what extent) the diet includes meat. Alternatively, Jeavons argues that using GROW BIOINTENSIVE methods, about 4,000 ft² of land will provide enough calories for one vegan diet. In other words, one acre of land should supply enough vegetables annually to feed ten to twelve individuals.⁶

Education

Urban farms often host educational programs in gardening, composting, cooking, and farmstand or market management. Through weekly classes, one-day field trips, and intensive summer programs at the farm, students and even pre-school-age members of urban communities can learn literally “hands-on” about the biological cycle of food production and consumption, as well as waste management, recycling, and composting. Not only can hundreds of children gain knowledge, habits, and skills from a single plot of land, but their interest in and enthusiasm for nutritious foods often grows out of this farming experience.

Environment

Urban farms contribute to the “greening” of a city by decreasing the number of miles food must travel to reach urban households, and by using green space for organic cultivation that contributes to the air, soil, and aesthetic qualities of a city. Studies estimate that fresh produce in the US travels 1500 miles before being consumed.⁷ The distribution of food grown on city farms, literally blocks from dense urban populations of

consumers, minimizes this distance to about twenty miles or less. Implementing organic farming methods also ensures that no chemical pesticides or fertilizers are used on the farm property. Many of the vacant plots currently used for urban agriculture are located in industrial districts, and were formerly contaminated with lead and other toxic substances. Clean soil for farming can be built up atop the pavement in these areas, or remediation can render the site safe for agricultural use. Either way, urban farms contribute to the redevelopment of areas plagued by toxic contamination.

Economy

Urban farms provide employment opportunities to the local community. Two of the farms highlighted in this study offer jobs specifically to the surrounding at-risk youth population. Another of the farms was established by a non-profit organization specifically to host a job-training program for homeless and low-income individuals. In every case described, however, the current income generated through farm sales is not enough to provide sufficient wages for the farm employees. Non-profit organizations, grants, and other forms of outside funding usually provide additional support.

Like many small-scale rural farms, many of today's urban farms are only working towards profitability. According to SPIN farming pioneers Wally Satzewich and Gail Vandersteen, a farmer using Small Plot Intensive (SPIN) techniques, can gross \$50,000 from a half-acre plot.⁸ According to the projections of SPIN farming, an urban commercial farm, between a half and one acre in size, at optimal operation, can achieve total revenues of \$120,000 through CSA shares and Farmers Market, Restaurant, and Wholesale sales. With expenses for supplies and utilities, vehicles, equipment purchase,

marketing, and employee labor adding up to \$60,000, the resulting income of \$60,000 would place a two-farmer household above the median household income in the US.⁹

Depending on local legislation, urban farms also generate substantial revenue for the city and state in which they are located, through taxes on wages and salaries, and sales, business, and real estate and use taxes paid on business property.¹⁰

SIX FARMS, SIX CITIES

One element of urban farming is that it grows out of various traditions and ideals, whether cultural, religious, environmental, or political. In every city of the United States, these traditions present fertile ground for the spread of urban farming. The farms highlighted in this study were chosen for one or another unique quality, from a list of locations compiled primarily through personal contacts and recommendations. They are addressed in a strategic rather than geographical order, to create a progression among the different issues confronted and addressed in each location. These farms represent only a small sample of the urban agriculture models in existence, in only a few of the cities where these projects have taken root.

ZENGER FARM

is located on six acres in the Lents neighborhood of Southeast Portland, Oregon.
--

Background

In 1992, the Zenger Family decided to sell their farmland of two generations, and approached the City of Portland with the hope that their historically agricultural land might escape development. The sixteen-acre parcel lies along the Johnson Creek

Watershed, and the City of Portland Bureau of Environmental Services (BES) bought the farm, recognizing the need to preserve the ten acres of wetlands included in the property. More of a behind-the-scenes bureau than an active community agency, BES had no plans for the land itself, and maintained the land in the spirit of the Bureau's mission to preserve floodplains. In 1995, a group of community members led by Marc Boucher-Colbert requested and gained permission to use the land for farming, offering to take care of maintenance and to organize environmental education programs. BES granted the community group a year-to-year lease in exchange for these benefits. In 1999, the community established the non-profit organization Friends of Zenger Farms (FZF), with the participation of Boucher-Colbert, and took over the operation of the education programs on site. BES agreed to a 50-year lease with FZF in 2002. This unusual agreement with a non-profit came about through recognition of the substantial community benefits provided by Friends of Zenger Farm. The Portland Development Commission (PDC) recognized the potential contribution of the farm to the redevelopment of Lents neighborhood, an urban renewal area of Portland, and funded a portion of the renovation at Zenger Farm. PDC began the over \$900,000 renovation project in 2004, and completed work in 2007. Friends of Zenger Farms is now located on-site.

Current Operations

Friends of Zenger Farm maintains the lease agreement with BES by sending the Bureau a yearly report and plan, outlining the success and development of the education programs offered at the farm. Farmer Laura Masterson cultivates the land itself, and the

business of the farm is her own. Masterson combines the produce from Zenger Farm with that of Luscher Farm, a 60-acre parcel located in the City of Lake Oswego, eight and a half miles from Portland. About two-thirds of Zenger Farm's produce is sold through the CSA, and the other third is sold to restaurants in Portland. The food from both Zenger and Luscher Farms provides CSA boxes to 120 CSA members during the summer, and 80 members in the winter. In 2007, there was a membership waitlist of 500. While the number of people sharing each box is hard to track, Masterson estimates the CSA serves about 500 individuals. CSA members pick up their boxes at a location more accessible than the farm, at 47th Ave and Glenwood Street, in the Woodstock neighborhood of Portland.

Masterson farms three of Zenger's six upland acres, allowing the remaining land to be used for education programming, an immigrant farmer program, and farm infrastructure. Masterson considers the farm to be at maximum production, although she keeps at least 25% of the land in cover crop at all times, minimizes her use of off-farm inputs, and farms organically.

Zenger Farm is located in a low-income neighborhood of Portland, and 10% of the CSA shares are scholarship shares, funded through CSA member donations or from grants received by Friends of Zenger Farms. According to Masterson, the non-profit has struggled with the need to work more with the immediate community in Southeast Portland. The farm sells some produce at the Lents International Farmers Market nearby, but "could probably do a better job of getting good food to the people who are directly adjacent to the farm." With a waitlist of five hundred potential CSA members, it's difficult for the farm to balance the need for funding with the need to serve the immediate

population. The revenue from CSA and restaurant sales belongs to Masterson, and provides for her and two staff people. During her first eight years at Zenger, Masterson had a second job. She has kept careful track of “people, planet, and profits” on the farm, in order to assess what is really needed to make the farm economically sustainable. “It’s the dirty secret of small farms,” she says. “They don’t make much of a profit. Everybody has a second job.” Masterson is currently completing her assessment of the farm’s needs, and plans on “asking the CSA members to step up to the plate, and pay what their vegetables’ production costs.”¹¹

Friends of Zenger Farm’s education programs at Zenger are a huge contribution to the urban community. The farm hosts 2800 field trips a year from school classes and youth organizations in Portland, and holds five weeklong summer camps every summer for kids ages 6-12. FZF also welcomes community groups interested in bees and chickens, and runs an immigrant/refugee program that offers land to local families, as well as a sustainable farming training program for emerging farmers. BES supports this education as contributing to the bureau’s environmental mission, appreciates having permanent access to the wetlands through the farm property, and often sends a bureau staff member to help lead Zenger programs specifically related to wetlands and floodplain conservation education.¹²

While BES has committed to the long-term lease with FZF, Masterson recognizes that the Bureau is constantly reassessing whether Zenger Farm is in fact the best use of the land. According to BES Program Coordinator Marie Johnson, the Bureau “is proud to be associated with Zenger, and has been happy with the organization in general.” Zenger recently proposed expanding, however, to include the 4.86-acre BES property

behind the farm, and has not received overwhelming support. Johnson explained, “It’s hard for the Bureau to decide if the flat, multi-family zoned property would best be used for farming.”¹³

Future Planning

The Portland Development Commission has begun construction on a new MAX (Metropolitan Area Express) line that will run through the Lents neighborhood.

According to Friends of Zenger Farm Executive Director Beth Gentry, the increase in public access to the farm will increase the ability of the farm to benefit the community. This foresight contributes to FZF’s interest in expanding the farm to include the second BES property. As FZF enters into its third year of funding from Heifer International, Gentry hopes the non-profit might take on some actual farming, and is currently advocating the farm’s expansion. “It takes really open communication to have the relationship we try to maintain with the city,” Gentry explains. “Several Portland officials think the expanded farm project would be great, but no one in the city is responsible for supporting urban agriculture. We need to keep reminding them.”¹⁴

Zenger Farm has been fortunate to have the support of consecutive commissioners who have been interested in innovative activities like urban farming, and who are particularly committed to food policy issues. BES’ Marie Johnson feels the city has a great relationship with Zenger, but acknowledges that further support for urban agriculture can be complicated, because “no one in the city owns that issue.” In the case of BES, Johnson explains, “no matter how much we may appreciate a creative proposal

for our land, we have to assess how that proposal fits into the actual mission of our Bureau.”¹⁵

The last decade has seen increased awareness of and support for urban agriculture in Portland, but little concrete policy has changed. The Portland Food Policy Council was created by a city resolution in 2002, and in 2004, the City of Portland commissioned a report entitled *The Diggable City: Making Urban Agriculture a Planning Priority*. The request for *Diggable Cities* was a result of Commissioner Dan Saltzman’s Resolution #36272, which directed city bureaus to conduct an inventory of city-owned land that was suitable for community gardens and other urban agricultural uses. The *Diggable Cities* inventory included properties under the management of the Bureaus of Environmental Services, Parks and Recreation, Transportation, and Water, and identified 242 locations suitable for mid- to large-scale ($\geq 1/4$ acre) growing operations, including the 4.86-acre parcel adjacent to Zenger Farm. The City has not yet acted on the recommendations of the *Diggable Cities* report, to “Conduct a Comprehensive Review of Policy and Zoning Obstacles,” and to “Adopt a Formal Policy on Urban Agriculture.”¹⁶

SOMERTON TANKS DEMONSTRATION FARM is located on a half-acre of land in northeast Philadelphia, Pennsylvania.

Background

In 2001, the Philadelphia Water Department, (PWD) was looking for an environmentally and financially efficient way to maintain the one hundred acres of lawns that surround their facilities. The Department came into contact with the Institute for Innovations in Local Farming (IILF), a volunteer run, non-profit organization dedicated

to developing sub-acre farming techniques and providing training and support to urban farmers. Merging their “strategic planning and agriculture expertise,” the Institute and the Philadelphia Water Department (PWD) formed a partnership to “work towards their shared vision of a greener City, to help protect the city’s waterways, and to attract sustainable agriculture businesses to Philadelphia.”¹⁷ The product of this partnership was Somerton Tanks Farm (STF), a half-acre of cultivation on the land surrounding two large PWD water tanks. The primary goal of the farm was to demonstrate sustainable business in the form of agriculture. By using wastewater and chemical-free compost, the farm aimed to be a largely self-sustaining business and to demonstrate the economic viability of commercial farming on small parcels of land. The farm ran successfully for six seasons, from 2001 to 2006. In 2007, the water tanks needed repainting, and the farm operation was put on hold. Meanwhile, the Institute completed the study *Farming in Philadelphia: Feasibility Analysis and Next Steps*, funded in part by the Philadelphia Department of Community and Economic Development.

Current Operation

While STF was in operation, the farmers used not only organic methods, but followed the Small Plot Intensive (SPIN) farming technique. SPIN is a farming system that allows growers to earn significant income from land bases under an acre in size, particularly by minimizing the barriers of land and capital, and maximizing the productivity of the land through intensive gardening. Developer of SPIN farming Wally Satzewich sells the produce from his urban farm operation which comprises twenty-five different backyard plots in Saskatoon, Saskatchewan in Canada. Satzewich attests that

SPIN's precise revenue targeting formulas and organic-based techniques make it possible to gross \$50,000 from a half-acre of land.¹⁸

Somerton Tanks Farm occupied land owned by the City of Philadelphia that had previously been mowed and maintained by the Philadelphia Water Department. The PWD leased the land to the Institute for \$1.00. The space includes a _ acre of growing space and another _ acre for pathways, parking, and farm structures. Grassy lawns surround the site, and this green space abuts the backyards of neighboring houses.¹⁹

In 2006, STF sold about fifty percent of its produce at four outdoor farmers markets in Old City, Center City, South Philadelphia and West Philadelphia. The farm provided vegetables to the Philadelphia community through a 46-member CSA, while wholesale markets and an on-site farmstand generated a smaller portion of the farm's revenue.

The earnings at Somerton Tanks Farm were well-documented and organized, in order to assess the economic feasibility of agriculture in Philadelphia. The farm grossed \$52,000 in sales in 2006, and \$68,000 in 2007. The operation costs of the farm totaled \$69,600 in 2006, including \$39,700 for the two farmers and \$11,500 for an assistant farmer. Through increased farm/farmer productivity, expanded use of part-time labor, and extended production area/season, the study projects this number could grow to \$120,000 in annual sales. The resulting \$60,000 in net income would place a two-farmer household above the Philadelphia median household income.²⁰

Local Context

The zoning of the land was not an issue for Somerton Tanks Farm. According to the *Farming in Philadelphia* study, “elements of agricultural uses are allowed in many Philadelphia zoning classifications,” and none seem to expressly prohibit agriculture.²¹

The City of Philadelphia is very supportive of the type of urban agriculture demonstrated at Somerton Tanks Farm. Not only does the production contribute tax revenue, but collaboration with IILF covers a significant number of maintenance costs for PWD. The *Farming in Philadelphia* study identified 317 vacant parcels in Philadelphia, covering 12,362 acres, of which eighty-one (over 6,000 acres) are owned by the City of Philadelphia or related agencies. The study considered three categories of potentially available land for farm sites, including long-term public open space (parcels intended to remain permanently in open space use) as well as parcels subject to public disposition, and non-profit parcels available for joint mission programming.²²

Somerton Tanks Farm demonstrated how several urban farm sites, if established, would have a significant impact on the environment, health, and food security of the Philadelphia community. Somerton Tanks Farm alone absorbed more water runoff than the surrounding lawn. If replicated, farms in Philadelphia like STF would reduce the greenhouse effect by absorbing and retaining toxic gases, and reduce the urban heat island effect by cooling the surrounding air. The organically grown vegetables of STF were also more nutritious than many of the industrially produced foods available in the city, and the lack of need for transportation necessarily reduced the gas mileage normally required to serve urban eaters.²³

The *Farming in Philadelphia* study suggests “land use restrictions will allow commercial farming enterprises in many locations [within Philadelphia] with landowner and community approval. The form of this approval will either be by-right for privately owned properties in certain zoning districts, through ‘use variance’ for others, or through public approval of leases on long-term publicly-owned sites.”²⁴

Entrepreneurial farmers on urban farms could save the City substantial sums in ongoing maintenance costs. “Based on PWD’s practice of seventeen annual mowings and a unit cost of \$200 per half acre per mowing, ten half- to one-acre farms operating on former public open space area would result in annual savings in public operating costs of more than \$50,000, for mowing alone.”²⁵

Somerton Tanks Farm also demonstrated the economic and fiscal benefits of farming to the City of Philadelphia. If one farm were to reach \$120,000 in sales, it would provide \$89,700 to the city in tax benefits, and \$55,200 to the state. These tax benefits are generated by taxes on wages and salaries, and sales, business, and real estate and use taxes paid on business property.

Future Planning

Urban farming in Philadelphia is in an optimal position to spread throughout the city. The *Farming in Philadelphia* study has proven the feasibility of “vitalizing the vacant” lots that are draining the city’s money and natural resources. In fact, a review of Philadelphia records in June 2007 identified 317 parcels of vacant land of three acres or greater, mostly owned by city agencies or non-profit organizations.²⁶ Philadelphia

planners, perhaps unintentionally, greatly aided urban farming by not expressly prohibiting agricultural use in any zoning ordinances in the city.

One aspect of the urban food system not explicitly addressed in the *Farming in Philadelphia* study was a system of distribution for the proposed urban farms. Planners might consider easing access to the farm locations, whether by public or private transportation, as consumers will most likely need to purchase the produce from the farm itself.

TROY GARDENS COMMUNITY FARM is located on five acres in the Northside of Madison, Wisconsin.

Background

In 1995, the State of Wisconsin decided to put thirty-one acres of land on the State surplus list. Many members of the surrounding community in Madison had been using the vacant land for gardening, dog walking, and other recreation. Upon hearing of a proposed housing development on the site, a group of community members, organized by the Northside Planning Council, invited the Madison Area Community Land Trust (MACLT), the Urban Open Space Foundation (UOSF), and various other non-profits to join them in forming the Troy Gardens Coalition. In 1997, the coalition drafted an innovative mixed-land-use proposal for the thirty one acres, whereupon the State of Wisconsin removed the land from the surplus list. The City of Madison accepted the land use proposal in 1998, and in 2001, MACLT completed the purchase of the property. The Troy Gardens Coalition formed the non-profit organization Friends of Troy Gardens, which MACLT granted a 16-year lease “to use the land for community gardens and open

space,” while UOSF held a conservation easement on 26 acres of the land.²⁷ The entire Troy Gardens site includes not only the Troy Community Farm, but 3.3 acres of community gardens, 3.3 acres of native prairie land, and thirty mixed-income housing units (on 5 acres).

Local Context

Troy Gardens gained political support primarily because of the immense community enthusiasm and involvement in the project. While Education Program Director Nathan Larson mentioned that “the City does favor property-tax revenue,”²⁸ Troy Gardens provides significant alternative benefits to the city that offset whatever financial gains the city might have otherwise made selling the property to a private developer. Originally, the Troy Gardens Coalition relied upon the support of several forward-thinking local politicians, who thought a place like Troy Gardens would benefit the City of Madison. Now, Troy Gardens is a source of city pride and publicity. Current Mayor Cieslewicz joined the farm’s CSA for a year. According to Strader, “As a unique and innovative development, Troy Gardens doesn’t just provide a predictable photo opportunity to Madison politicians, but is something they’re actually proud to have be a part of the City they represent.”²⁹

Current Operation

The Troy Gardens Community Farm reached full capacity in 2006. Farmer Claire Strader cultivates on 3.5 acres, leaving a half-acre fallow, while another half-acre is devoted to a drive around the land and a path through the center. The produce grown is

distributed through a CSA model, and CSA membership will increase to 115 members in 2008, up from 110 in 2007. Although many regional farmers deliver their CSA boxes to various drop-off sites in Madison, Troy Gardens' CSA members come to the farm for their shares. Farmer Strader feels "it's important to draw the community onto the property, particularly since the farm is *in* the city," and it's no farther from their home than other drop-off sites in the area.³⁰ Nine of the thirty households living at Troy Gardens have joined the CSA, and sixty percent of the CSA membership lives in the immediate area, on the Northside of Madison. Surplus crops are distributed to the small farmers' markets in Madison. The larger local farmers' markets require that the farmer own at least 20% of the farm business, excluding Strader as she is an employee of the Friends of Troy Gardens and only one of the non-profit's many members who own the farm.³¹

Strader is currently working on minimizing off-farm inputs, to reduce the farm's dependence on fossil fuel. Executive Director Bob Gragson joined Friends of Troy Gardens in September 2007, and looks to the future of the property with particular attention to the increasingly limited natural resources on the planet, and what their limit means for food production. The philosophy behind much of the non-profit's work is that "urban food production – growing food where the people are - will be more and more important as transportation becomes more difficult and resources more scarce."³²

Friends of Troy Gardens runs a kids' gardening program on-site, as well as a "Farm and Field Youth Training Program in Sustainable Agriculture and Natural Areas Restoration," in which children ages 14-17 earn a small income for working outdoors

within the Troy Gardens site. The teenagers learn and practice skills related to harvesting on the farm, maintaining the natural areas, or helping out at the Troy Drive farm stand.

Like many non-profit organizations, Friends of Troy Gardens struggles to raise enough money to sustain their operations. Sales from the farm barely cover the costs of the farm, which include the salaries of a Farm Manager, Assistant Farm Manager, and four paid interns. The farm relies upon grants, and has been reaching out to businesses in the community for support. Friends of Troy Gardens is working on gaining corporate sponsorship, expanding an educational series that will bring in further revenue, and developing additional businesses that might be run from the farm.³³

Future Planning

The unique collaboration of the Madison Community Land Trust and the Urban Open Space Foundation, a conservation land trust, presents a model worth emulating in the future. By deciding to join the Troy Gardens Coalition, MACLT was able to build a substantial number of affordable housing units, and UOSF was able to preserve a large tract of urban open space with the potential for many activities. Together, the land trusts were able to pool their sources of funding, share their strategizing savvy, and utilize their different mechanisms of land purchase and ownership. Both land trusts' directors "agree that open space preservation and affordable housing make good bedfellows."³⁴ The creation of Troy Gardens would never have been possible without the input, perspective, and collaboration of the community members and both the community and conservation land trusts. If planners in any city were to zone land specifically for urban agriculture, this sort of mutually beneficial, multi-faceted collaboration would be greatly encouraged.

WOOD STREET URBAN FARM

is located on two-thirds of an acre in the South side of Chicago, Illinois.

Background

In 1992, the Chicago Coalition for the Homeless (CCH) was awarded a plot of surplus land at Navy Pier through the McKinney Act, a piece of legislation passed in 1986 that allowed organizations working with homeless people to acquire federal surplus land for use on specific projects.³⁵ Unfortunately, the City of Chicago had already agreed to include the same land into the Navy Pier recreational tourist complex. This conflict and subsequent negotiations led to CCH being given instead the title to the larger city-owned brownfield site on Wood Street. The City paid for the remediation of the site, granted CCH free access to Chicago's farmers' markets, and gave the organization a rent-free stall at Navy Pier to sell its produce and value-added products.³⁶ The non-profit corporation Growing Home was formed out of CCH in 1996, with the mission of providing job training and creating employment opportunities within the context of a non-profit organic agriculture business. Growing Home now operates the Wood Street Urban Farm, as part of their "innovative transitional employment program for homeless and low-income people in Chicago."³⁷

Local Context

In 2006, researcher Mari Gallagher, with the help of LaSalle Bank, the Local Initiative Support Corporation, and many others, completed a report entitled *Examining the Impact of Food Deserts on Public Health in Chicago*. The report established a significant correlation between Chicago communities living the farthest distance from

grocery stores, and the areas of the city with the highest rates of obesity, diabetes, and heart disease. The report not only identified three key food deserts on Chicago's South and West sides, but located these as communities where individuals had the highest rates of obesity, cardiovascular diseases, and diabetes in the city.³⁸

The Wood Street Farm property is located in a heavy industrial zone, within the "food desert" of the South side, in one of the poorest neighborhoods of Chicago. In 2005, the Local Initiative Support Corporation (LISC) and Teamwork Englewood collaborated through the New Communities Program to draft the *Quality of Life Plan 2005*, which designated an "urban agriculture district." This district includes the land where the farm is located, and is meant "to provide business and employment opportunities, and to improve availability of fresh produce."³⁹

As a project of Growing Home and the Chicago Coalition for the Homeless, the Wood Street Urban Farm has a positive relationship with Chicago politicians. Chicago Mayor Richard Daley has widely promoted his image as a "green mayor," and not only he but the larger urban community sees the Wood Street Urban Farm as a great force in the push towards making Chicago a more environmentally friendly city.⁴⁰ Not only is Growing Home providing a service to Chicago through the job-training program, but the City saves money through the maintenance of the Wood Street land, and receives taxes from the 6-month program participants.

Current Operation

The food produced at Wood Street Urban Farm is combined with produce from Growing Home's second farm location, in LaSalle County, Illinois, and is sold through a

CSA program, and at the farmers markets in Englewood, the Green City Market in Lincoln Park, and the on-site farmstand. In general, the farm in LaSalle County accounts for the CSA and a portion of the Green City Market sales, while the Wood Street Urban Farm accounts for a portion of the sales at the Green City Market, and those at the farmers' market and the on-site farmstand.

The money earned through the Wood Street Urban Farm CSA falls back into Growing Home's job training program. Growing Home pays their program participants minimum wage for their work on the farm, and the total cost per person in the program is \$12,000. The total earned through Growing Home's two farms does not cover the cost of the farm operation nor the job training program costs. Growing Home relies heavily upon grants from foundations and others to meet their yearly budget.⁴¹

Growing Home is currently maximizing their production at the Wood Street farm, particularly in order to sell to more restaurants, and is working with a team of business students to come up with possibilities for value added products. Ideally, both the Wood Street and LaSalle County farms will not only cover their operation costs but also cover part of the cost of the training program.⁴²

Future Planning

The City of Chicago has recently given substantial attention to the local food system. The New Communities Program's Quality-of-Life Plan for Chicago, developed for several neighborhoods in the city and published in 2005, refers not only to the obesity epidemic as a "critical issue," but urges the "preservation and addition of open space, be it a neighborhood garden, an urban farm, or a fully-equipped public park."⁴³ In July

2007, the Department of Planning and Development published its plan “Chicago: Eat Local Live Healthy,” a “framework for creating a food system where the production and distribution of locally grown, healthy food is available, accessible, and affordable to residents year-round.” The plan includes an initiative to “increase food production in more urban settings and encourage children to develop an interest in gardening skills.”⁴⁴ There are over 300,000 acres of vacant lots in the South side of Chicago, and the community is in need of nutritious food, productive employment, and educational activities for children.⁴⁵ Chicago is set to take advantage of the benefits of urban farming.

While the Wood Street Urban Farm is an encouraging first step for urban agriculture in Chicago, and enables Growing Home’s job-training program, most of the food produced on the farm does not feed the immediate community. The Wood Street Farm CSA shares belong to those Chicago families who can afford to pay relatively high (market) prices, which then support the program and farm operation. These prices are not affordable for the immediate community. If Growing Home were to have access to more land, to expand their farm operation to include several urban locations, the increase in sales might enable the farm in the South side to serve its immediate community.

<p>RED HOOK COMMUNITY FARM is located on a nearly three-acre site in the Southwest corner of Brooklyn, New York.</p>
--

Background

In 2002, the non-profit organization Added Value, committed to promoting the sustainable development of Red Hook, Brooklyn, approached the New York City Department of Parks and Recreation about the parcel of land at 580 Columbia Street. It

was only a year after the events of 9/11, and there was a budget shortfall in the city. The park parcel was badly maintained and underused. Added Value offered to improve the Department's services if given permission to use the land. The parcel would remain under park jurisdiction (Added Value would not seek to claim it as a community garden) and the non-profit was not interested in property ownership. In 2003, the Parks Department agreed to a Memorandum of Understanding with Added Value, using the Parks' agreement with the Korean Gardeners Association as a model.

Local Operation

The Red Hook Community Farm land is zoned for parks and recreation.

The food produced at the farm is sold through a CSA and two local farmers markets, and to three nearby restaurants. The farmers estimate that the yield in 2007 was 8,313 lbs of produce, although this total does not include the amount of food harvested for educational programming or for staff consumption, which could bring the total to 10,000 lbs.⁴⁶ According to the 2007 Farm Productivity log, the Red Hook Farmers' Markets yielded net revenue sales of \$5,182. The farmers' markets accounted for about a half of the total harvest weight off the farm. The Red Hook CSA brought in a total of \$3,420. and restaurant sales totaled \$9, 875, for a produce sales total of nearly \$18,500. The farm also receives some revenue from the fee for student groups' one-time visits. While the revenue from the farm has significantly increased in recent years, it does not exceed the cost of farm operations, including staff salaries and the use of a nearby restaurant's walk-in cooler. The farm depends upon the grants received by Added Value.

In addition to managing farmers and interns, Added Value operates Youth Empowerment and Farm to School programs at the Red Hook Community Farm. The Youth Empowerment initiative educates teenagers from the surrounding neighborhood in sustainable business skills, media literacy, and community education and organizing. The teens that complete this program over an academic year are invited to work with the Added Value staff and interns who run the summer program. In the 2007 school year, over 1200 students, from twenty-two different schools, visited the farm through Added Value's Farm Based Learning initiative,. These students were involved in the "Farm to Classroom" and "Seed to Salad" programs, or participated in one-time visits to the farm.

Future Planning

Added Value is working on gaining a more permanent lease for the land at Red Hook Community Farm. Executive Director Ian Marvy feels the city is not opposed to making a more formal agreement with Added Value, as the organization can demonstrate the farm's significant contribution to the community. Marvy co-founded Added Value with the intention of helping the community find a solution to distinct local problems of education, nutrition, and employment. While there is certainly room for urban farming to expand in New York, Marvy feels that such agriculture isn't the solution to any given community's food system problems. In the Lower East Side, Marvy explained, regional farmers' CSAs have thrived for years, because the neighborhood has long included community gardens, and the specific micro-culture encourages a strong, mature connection to the source and significance of food. For a community with this connection, Marvy concluded, CSAs might be a more natural innovation in the local food system

because access to large tracks of land for urban farming does not exist. . The Red Hook Community Farm, however, provides Red Hook with a solution tailored to the community’s physical environment, as well as Red Hook’s specific cultural and social situation.

ALEMANY FARM

is located on a four-acre site in the south end of San Francisco, California.

Background

The four-acre parcel of land between St. Mary’s Recreation Center and the Alemany Housing Project is owned by the San Francisco’s Recreation and Parks Department, and the San Francisco Housing Authority (SFHA). In 1994, the San Francisco League of Urban Gardeners (SLUG) began a community farming project on the untended land, which until then had been used as a dumpsite. The farm continued operating until 2000, when SLUG collapsed because of financial mismanagement and entanglement in City politics.⁴⁷ The land lay untended again until 2005, when a group of volunteer gardeners began to revitalize the land, regularly weeding, planting, and pruning the fruit trees during their weekend visits. In 2006, these “guerilla gardeners” applied for funding from the Department of the Environment’s food security program. Meanwhile, an individual donor gave the farmers \$10,000 to jumpstart their planned youth-worker program. Alemany Farm is now officially a project of the Alemany Resident Management Corporation (RMC), a non-profit dedicated to improving conditions in the Alemany community. The land is zoned Community Garden, and the Alemany RMC

manages the property on a month-to-month Memorandum of Understanding, with the same expectations of roles and responsibilities as a community garden.⁴⁸

Current Operation

The San Francisco Recreation and Parks Department supports the agricultural use of their land, donating wood chips and compost to the farmers, as well as providing free water. Through grants and other outside funding, Farm Manager Jason Mark is paid a part-time salary to train teenagers from the Alemany Housing Project in farming and employment skills, and these youth receive wages for their work on the land. Volunteer farmers complete the rest of the farm work on weekend workdays. According to Mark, the youth program accounts for about 25% of the work, while volunteers accomplish the remaining majority of the tasks on the farm.

Alemany Farm's distribution system is difficult to track and record. The teenage workers and volunteer farmers are allowed to harvest what they will. Mark also provides some produce to the low-income community at the Bayview-Hunter's Point Farmers Market, where he sells nearly every item for only \$1.00. Mark estimates the farm grew 2500 lbs. of food in 2007, but knows that it may have been much more.

Alemany Farm relies entirely upon grants and volunteer labor. While generating minimal funds from produce sales, the Farm serves the community by providing employment to the residents of the Alemany Housing Project, and providing nutritious produce to low-income families in the area.

Future Planning

The Alemany Resident Management Corporation is working with the Recreation and Parks Department to develop a long-term use plan for Alemany Farm for “hosting a variety of programs that will foster engagement with the natural environment; provide organic food to low-income communities; and create opportunities for recreation.” The Alemany RMC hopes to establish a more official lease agreement with the Recreation and Parks Department and the San Francisco Housing Authority.⁴⁹

Several projects are currently operating in San Francisco to organize agricultural use of publicly owned vacant lots and privately owned backyard spaces. Victory Gardens 2007, the San Francisco Urban Permaculture Guild, the Alemany Farm, and countless community gardeners are together gaining considerable force with which to demand that more urban land be designated for agricultural use. More stable access to the vacant land in San Francisco would allow farmers like those at the Alemany Farm to invest in more intensive farming methods, and to organize more formal food distribution from their farms to communities in need.

CONCLUSIONS

Until recently, urban planners have most often left the resolution of food system issues to the private sector. City communities and planners alike are now beginning to recognize that “coordinated food system planning...can create jobs, support the local economy, and ensure that all community members have equal access to quality food.”⁵⁰ Alternatively, planners have the power to ignore the connections between city plans and our nation’s food system. Urban plans can encourage fast food outlets and big box retail,

support the transformation of agricultural land into subdivisions, and ignore the food deserts and declining health of urban communities. The Community Food Security Coalition (CFSC) suggests many ways in which a city's General Plan can incorporate urban farming, including support and accommodations for urban agriculture in Land Use, Open Space, Housing, Conservation, Noise, Safety, and Economic Development elements of the plan. The Land Use and Open Space elements can contribute to the preservation and designation of land for food production, while Housing plans could incorporate courtyard gardens as gathering places. The Conservation element could include composting green waste and using gray water for urban agriculture, and the Noise element might recommend absorbing noise pollution through community gardens and urban farms. Even the Safety element of a General Plan could include the benefits of close ties and relationships formed through community gardening and farming. On a more local level, CFSC suggests rezoning land, or making a zoning text amendment, to designate specific parcels for urban food production, or to specifically allow gardening in residential and commercial areas.⁵¹

The six farms highlighted in this study have established varying relationships with their local urban planners and politicians. The collaboration between Madison's city planners and community members created Troy Gardens, while the Wood Street Urban Farm exists in Chicago because of its association with an organization for the homeless. Both Somerton Tanks Farm and Zenger Farm barely interacted with the city planning departments in Philadelphia and Portland, and both Added Value and Alemany Farm were able to form agreements with the Parks and Recreation Departments of New York

and San Francisco, respectively, without requiring any alteration of land ownership or land use.

Four of these six farms owe their existence to community demand and initiative. This community demand, for access to clean, healthy foods, educational open space, and environmentally friendly employment, is growing throughout cities in the United States. If urban food production does not become a priority for city planners and politicians, urban farms will continue to crop up across the country, and will most likely continue to require difficult negotiation with city officials, as well as predictable financial struggles. Today's urban planners have the opportunity to integrate urban farms into the structure of America's cities, to inspire permanent community collaboration between urban farmers and city agencies each with strategic and material resources, and to require urban infrastructure that fosters environmentally-efficient rather than wasteful systems of land use and food consumption. With the support of today's urban planners, urban farms will have the opportunity to more permanently, efficiently, and affectively benefit the health, education, environment, and economy of America's urban communities.

¹ Philip Wenz. Bring back the WWII-era victory garden. *SFGate* (April 12, 2008), 1.

² U.S. Department of Agriculture. "Farmers Market Growth: 1994-2006."

<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateS&navID=WholesaleandFarmersMarkets&leftNav=WholesaleandFarmersMarkets&page=WFMFarmersMarketGrowth&description=Farmers%20Market%20Growth&acct=frmdirmk>. (accessed April 25, 2008).

³ American Planning Association, *Policy Guide on Community and Regional Food Planning* (National Planning Conference: May 2007), 11.

⁴ Mari Gallagher Research and Consulting Group, *Examining the Impact of Food Deserts on Public Health in Chicago* (Chicago, 2006), 6.

⁵ *Ibid.*, 2.

⁶ John Jeavons, *How to Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine* (Berkeley: Ten Speed Press, 2002), xii-xiii.

⁷ Holly Hill. "Food Miles: Background and Marketing," *A Publication of ATTRA: National Sustainable Agriculture Information Service*, 2008. <http://attra.ncat.org/attra-pub/PDF/foodmiles.pdf>, 1.

⁸ Urban Partners, *Farming in Philadelphia: Feasibility Analysis and Next Steps* (Institute for Innovations in Local Farming: December 2007), 3.

⁹ Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica Smith. *Income, Poverty, and Health Insurance Coverage in the United States: 2006*, U.S. Census Bureau, Current Population Reports, P60-233 (U.S. Government Printing Office: Washington DC, 2007), 4.

¹⁰ *Farming in Philadelphia*, 3.

¹¹ Laura Masterson, interview with the author, April 2008.

-
- ¹² Ibid.
- ¹³ Marie Johnson, interview with the author, April 2008.
- ¹⁴ Beth Gentry, interview with the author, May 2008.
- ¹⁵ Ibid.
- ¹⁶ Nohad A. Toulan School of Urban Studies and Planning, *The Diggable City: Making Urban Agriculture a Planning Priority* (June, 2005), 59.
- ¹⁷ Somerton Tanks Farm Documents, "Newsletter 2006." <http://www.somertontanksfarm.org/news/> (Accessed April 21, 2008).
- ¹⁸ SPIN Farming, "What's SPIN?" <http://www.spinfarming.com/whatsSpin/> (Accessed April 21, 2008).
- ¹⁹ *Farming in Philadelphia*, 7.
- ²⁰ Ibid., 2.
- ²¹ Ibid., 20.
- ²² Ibid., 22.
- ²³ Ibid., 30.
- ²⁴ Ibid., 20.
- ²⁵ Ibid., 33.
- ²⁶ Ibid., 21.
- ²⁷ Urban Open Space Foundation Program and Policy Initiatives, "Conserved Land," Urban Open Space Foundation, <http://www.uosf.org/initiatives.html> (Accessed April 27, 2008).
- ²⁸ Nathan Larson, interview with the author, April 2008.
- ²⁹ Claire Strader, interview with the author, April 2008.
- ³⁰ Ibid.
- ³¹ Claire Strader, personal communication with the author. May 2008.
- ³² Strader, interview.
- ³³ Ibid.
- ³⁴ Marcia Caton Campbell and Danielle A. Salus, *Community and conservation land trusts as unlikely partners? The case of Troy Gardens, Madison, Wisconsin*. (University of Wisconsin-Madison: February 2002), 173.
- ³⁵ Rebekah Silverman, personal communication with the author, April 2008.
- ³⁶ Chris Lazarus, *The Power of Planning: Growing Home, Chicago, Illinois*. New Village: Building Sustainable Communities, Resources. <http://www.newvillage.net/Journal/Issue2/2growinghome.html> (Accessed April 19, 2008).
- ³⁷ Growing Home, Mission and History, http://www.growinghomeinc.org/index.php?option=com_content&task=view&id=14&Itemid=59 (Accessed April 19, 2008).
- ³⁸ Mari Gallagher, 27.
- ³⁹ Local Initiative Support Corporation: New Communities Program, *Quality of Life Plan Summaries: Chicago Neighborhood Plans*. <http://www.newcommunities.org/tools/> (May 2005), 12.
- ⁴⁰ Rebekah Silverman, interview with the author, April 2008.
- ⁴¹ Silverman, personal communication.
- ⁴² Ibid.
- ⁴³ *Quality of Life Plan Summaries*, 5.
- ⁴⁴ Chicago Department of Planning and Development, "Department Sets Framework for a Sustainable Food System" (July 2007). http://egov.cityofchicago.org:80/city/webportal/portalContentItemAction.do?blockName=Planning+And+Development%2f+Want+T+o&deptMainCategoryOID=&channelId=0&programId=0&entityName=Planning+And+Development&topChannelName=Dept&contentOID=536957067&FailedReason=Invalid+timestamp.+engine+has+been+restarted&contentTypeName=COC_EDITORIAL&com.brroadvision.session.new=Yes&FailedPage=%2fwebportal%2fportalContentItemAction.do&context=dept (Accessed April 19, 2008).
- ⁴⁵ Silverman, interview.
- ⁴⁶ Ian Marvy, personal communication with the author, May 2008.
- ⁴⁷ Edward, Dierauf. *A Brief History of Alemany Farm*. <http://www.alemanyfarm.org/history.html> (Accessed April 22, 2008).
- ⁴⁸ Jason Mark, personal communication with the author, April 2008.
- ⁴⁹ San Francisco Recreation and Park Department, Minutes of Parks, Recreation, and Open Space Advisory Committee, Meeting of February 6, 2007. http://www.parks.sfgov.org/site/recpark_page.asp?id=58475 (Accessed April 28, 2008).
- ⁵⁰ Community Food Security Coalition, *Community Food Security News* (Spring 2007). http://www.foodsecurity.org/CFSCNEWSSP07_FNL_.pdf (Accessed May 2, 2007), 6.
- ⁵¹ Ibid.

BIBLIOGRAPHY

- American Planning Association, *Policy Guide on Community and Regional Food Planning*. National Planning Conference: Philadelphia, 2007.
- Campbell, Marcia Caton and Danielle A. Salus. *Community and conservation land trusts as unlikely partners? The case of Troy Gardens, Madison, Wisconsin*. Department of Urban and Regional Planning, University of Wisconsin-Madison: Accepted February 2002.
- Community Food Security Coalition, *Community Food Security News*, Spring 2007. http://www.foodsecurity.org/CFSCNEWSSP07_FNL.pdf (Accessed May 2, 2007).
- DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica Smith. *Income, Poverty, and Health Insurance Coverage in the United States: 2006*, U.S. Census Bureau, Current Population Reports, P60-233. U.S. Government Printing Office: Washington DC, 2007.
- Dierauf, Edward. *A Brief History of Alemany Farm*. <http://www.alemanyfarm.org/history.html> (Accessed April 22, 2008).
- Gentry, Beth. Interview with the author. 5 May 2008. Written notes.
- Harper, Alethea Marie. "Repairing the Local Food System: Long-Range Planning for People's Grocery." Thesis, University of California, Berkeley, 2007.
- Hill, Holly. *Food Miles: Background and Marketing, A Publication of ATTRA: National Sustainable Agriculture Information Service*, 2008. <http://attra.ncat.org/attra-pub/PDF/foodmiles.pdf>.
- Jeavons, John. *How to Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine*. Berkeley: Ten Speed Press, 2002.
- Johnson, Marie. Interview with the author. 28 April 2008. Written notes.
- Kaufman, Jerome, Kami Pothukuchi, and Deanna Glosser. *Community and Regional Food Planning*. American Planning Association: September/October 2007.
- Larson, Nathan. Interview with the author. 9 April 2008. Written notes.
- Lazarus, Chris. *The Power of Planning: Growing Home, Chicago, Illinois*. New Village: Building Sustainable Communities, Resources. <http://www.newvillage.net/Journal/Issue2/2growinghome.html> (Accessed April 19, 2008).
- Local Initiative Support Corporation: New Communities Program. *Quality of Life Plan Summaries: Chicago Neighborhood Plans*. <http://www.newcommunities.org/tools/>. May, 2005.
- Mari Gallagher Research and Consulting Group. *Examining the Impact of Food Deserts on Public Health in Chicago*. Chicago, 2006.
- Mark, Jason. Personal communication with the author. 12 April 2008.

Marvy, Ian. Personal communication with the author. 1 May 2008.

Masterson, Laura. Interview with author, 20 April 2008. Written notes.

Nohad A. Toulan School of Urban Studies and Planning, *The Diggable City: Making Urban Agriculture a Planning Priority*. June, 2005.

Ralston, David. Interview with the author. 11 April 2008.

San Francisco Recreation and Park Department, Minutes of Parks, Recreation, and Open Space Advisory Committee, Meeting of February 6, 2007.

http://www.parks.sfgov.org/site/recpark_page.asp?id=58475 (Accessed April 28, 2008).

Silverman, Rebekah. Interview with the author. 18 April 2008. Written notes.

Somerton Tanks Farm Documents, “Newsletter 2006.” <http://www.somertontanksfarm.org/news/> (Accessed April 21, 2008).

SPIN Farming, “What’s SPIN?” <http://www.spinfarming.com/whatsSpin/> (Accessed April 21, 2008).

Stair, Peter, Heather Wooten, and Matt Raimi. *How to Create and Implement Healthy General Plans: A toolkit for building healthy, vibrant communities through land use policy change*. Public Health Law and Policy: March 2008.

Strader, Claire. Interview with the author. 11 April 2008. Written notes.

Unger, Serena and Heather Wooten. *A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan*. Oakland Mayor’s Office of Sustainability: May 2006.

Urban Open Space Foundation Program and Policy Initiatives, “Conserved Land,” Urban Open Space Foundation, <http://www.uosf.org/initiatives.html> (Accessed April 27, 2008).

Urban Partners, *Farming in Philadelphia: Feasibility Analysis and Next Steps*. Institute for Innovations in Local Farming: December, 2007.

U.S. Department of Agriculture. “Farmers Market Growth: 1994-2006.” <http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateS&navID=WholesaleandFarmersMarkets&leftNav=WholesaleandFarmersMarkets&page=WFMFarmersMarketGrowth&description=Farmers%20Market%20Growth&acct=frmrdirnkt>. (Accessed April 25, 2008).

For their time, energy, knowledge, and advice,
thank you to Adam Brock, Novella Carpenter, Severine von Tscharner Fleming, Paul Glover, Jerry Henkin,
Hank Herrera, Jerry Kaufman, Nathan McClintock, Mary Jantzen Myers, Greg Rosenberg, and Heather Wooten.

Troy Gardens PUD
 January 14, 2003
 Site Plan (Overall)



Legend

- Boundary Line
- Primary Trail System
- Secondary Trail System
- Deer Fence
- Information Signage
- Rest Area
- Structures
- Bytuminous Pavement
- Sidewalks
- Hard Packed Trail
- Existing Trees
- Proposed Trees

SmithGroup JJR
 0 100' 200'