

GROWING COMMUNITY AGRICULTURE

...from the ground up



Matthew Bernstine, Allison Mouch, Julie Ulrich

GROWING COMMUNITY AGRICULTURE... FROM THE GROUND UP

Introduction & Overview	p. 1-5
Benefits	p. 6
Methodology	p. 7-12
Case Studies	p. 13-16
Recommendations	p. 17-20
Obstacles	p. 21-22
Resources	p. 23-26
Appendix	p. 27-30

About this Resource Guide

This guide emerged out of a *Community Food Systems* course in The University of Virginia's Department of Urban and Environmental Planning. It is designed for people seeking to make choices that strengthen our local food system by providing resource information and ideas for action.

We have compiled these resources with the intention of inspiring residents to initiate their own community based gardens and small farms. With this project, we hope to expand and improve opportunities for implementing urban agriculture projects within Charlottesville.

We wholeheartedly encourage you and your neighbors to take positive steps to create a more self-reliant and sustainable food system on a neighborhood level!



Urban Agriculture & The City of Charlottesville

Urban agriculture is best described as the practice of agriculture within or surrounding the boundaries of a city. Urban ag can take a variety of forms – individuals may choose to plant a private yard, patio or rooftop; community members may choose to share a space on which to plant and harvest food, taking advantage of private residential land, public roadside land, vacant lots, existing parks, and even riverbanks. In some instances, schools, hospitals, and other institutions maintain gardens to provide food to the community, but also to provide educational, therapeutic, and or leisure activities and opportunities for community members (<http://www.zerofootprint.net/blogs/155>). The practice of urban agriculture promotes income-earning or food producing activities, conservation of open land within city borders, food security for a specific population through increasing the amount, quality, and access to healthy food systems, as well as supporting local production and practicing sustainable agriculture.

Cities around the country have been recognizing that urban agriculture provides communities the opportunity to turn unattractive, vacant, unkempt urban open space into viable food producing sites, as a way of promoting healthy and secure food systems for all members of society. The benefits of urban agriculture stretch far and wide, affecting all aspects of urban life, sociological as well as ecological. Growing food in an urban setting reduces a municipality's ecological footprint immensely by eliminating the need for long-distance transport and the resulting greenhouse-gas emissions. Gardens also improve local urban microclimates and ecosystems, increasing biodiversity in plant and animal life throughout the city as well as increasing oxygen-rich air (thanks to photosynthesis). Gardens can also provide increased benefits to city sewer and drainage systems, relieving them of excess stormwater run-off increased by paved surfaces. Most importantly, the sociological influence of urban gardens has been studied in depth. These gardens not only provide the potential for job creation but, more importantly promote community ownership and pride (<http://www.zerofootprint.net>).



These positive aspects of urban agriculture are all applicable to a city such as Charlottesville. However, our focus on improving a community's access to local, healthy foods, particularly in underprivileged or underserved areas of Charlottesville, resulted in the most beneficial application of urban agriculture within this municipal region. In promoting policy that supports urban agriculture in the city of Charlottesville, we sought first and foremost to identify areas within the city boundaries where residents had little or no access to green space for gardening, coupled with little or no access to fresh, natural foods (based on a community survey completed by last year's foods class). In most cases, the areas identified were in communities identified low income, racial or ethnic minority communities where residents lack the resources to remedy their situation.

Focusing on the socioeconomic implications of an urban agriculture project for the city of Charlottesville, our group set out to develop a comprehensive work plan that would provide guidance and insight for non-profit organizations to implement community gardens, roadside plots, and vacant land improvements to promote the ideals of urban agriculture. While focusing on the efforts of a non-profit, grassroots organization (and the steps most feasible to take), we have also attempted to apply these policy recommendations to existing city and municipal government policy as a way to make the efforts of the organizations more fluid. As with so many community-based projects, it is imperative that a support structure be implemented for the success of a project requiring land acquisition and fundraising for community based gardens and urban agriculture programs.

Undeveloped Parcels

163 acres of Undeveloped Land



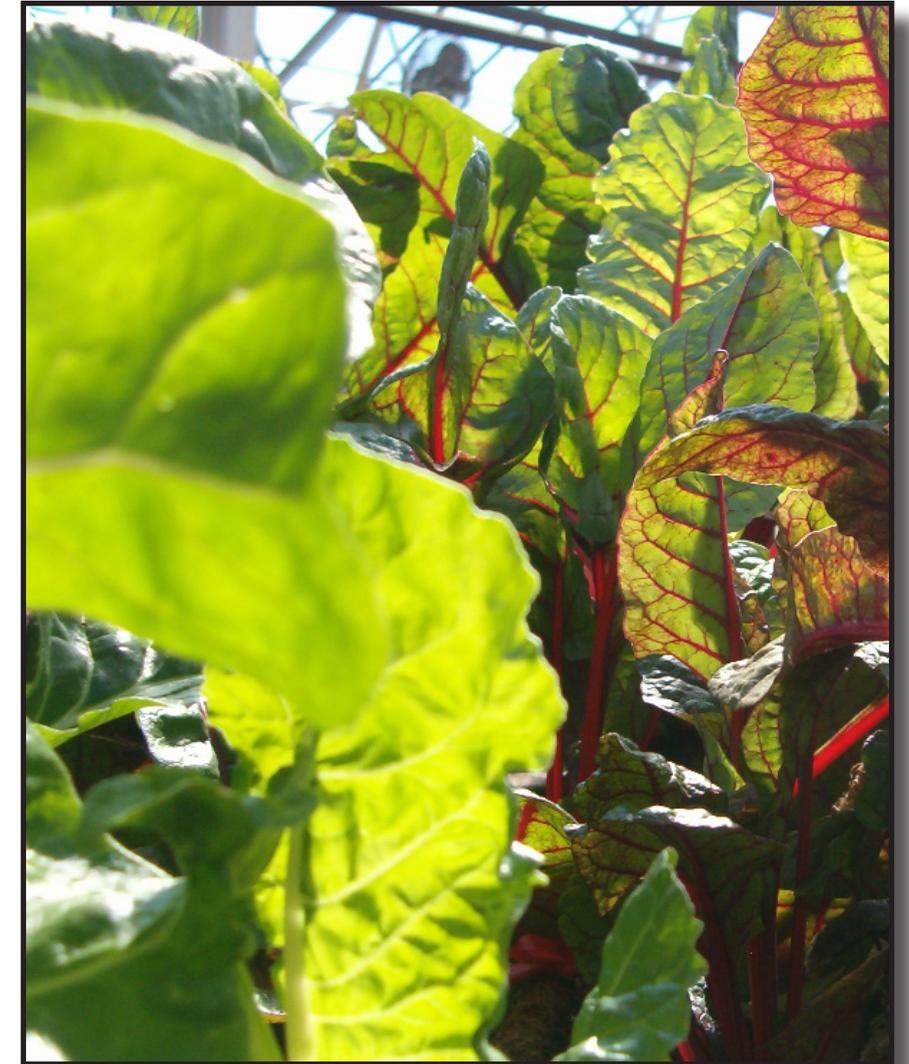
Map created by: Matthew Bernstein, Julie Ulrich, and Allison Mouch

Urban Agriculture: Goals and objectives

Urban Gardening comes in response to the growing disconnect between the people who consume food and the land in which it grows upon. Many cities are realizing that there is a need to confront this problem and as a result they have implemented gardens in their cities (i.e. Chicago, New York, Michigan). In an age where a consumer never has to even step foot on a farm or even think about how their food traveled to their plate, we see Urban Gardening as the missing link, that will bridge this ever widening gap.

There is an important distinction to be made between the goal of the group and that of the project. While, they may seem to be inherently the same, they differ in the methods used to achieve them. The ultimate group goal is to produce a document that can be used as a resource and toolkit for those interested in urban gardening. Our group hopes that the document we produce will basically be a how-to for urban gardening that address everything from how to choose a site to where to find funding sources. Even though the booklet will be specific to Charlottesville, there are key points and common threads that can be used and applied to other localities and cities. By focusing on Charlottesville we were able to provide specific details that would be unavailable if the project was on a broader scale.

In doing the research and the documentation, we feel that there is indeed enough demand and feasible sites throughout town for Charlottesville to house urban gardens. We recognize that there are barriers to entry and we have addressed them. Thus, for this project to take root we are calling on interested parties to take our ideas and final documents to make this a reality; this is the primary goal of the group. Whether this is an existing or yet to be formed group makes no difference to us. Let it be known that Urban gardening can become a reality in Charlottesville, Va.



Urban Agriculture in Charlottesville

The City of Charlottesville is home to a number of organizations currently working towards a sustainable food network grounded in urban agriculture. Community groups such as EAT Local and the QCC (Quality Community Council) are actively creating opportunities for citizens of Charlottesville to “get back to their roots.” A community garden in the Friendship Court headed by the QCC housing development is moving forward, to service the underprivileged residents in the community and the city as a whole. EAT Local actively promotes hands on educational techniques, supporting programs focused on healthy food preparation and cooking classes. CSA (Community Supported Agriculture) membership is growing among community members at an alarming rate, as Charlottesville residents are recognizing the importance of supporting local agriculture and eating fresh, healthy, organic produce. Additionally, the Charlottesville Community Market is a thriving weekend destination for visitors and locals alike, and continues to support the local economy while promoting healthy local food sources.



The Benefits of Neighborhood Based Gardens

Why is smaller better?

It is common thought that a large plot of land for a community garden or urban farm is better than a smaller one. However, as land values rise and the amount of open space diminishes, creatively using smaller plots of land for growing food starts to make sense. As the Charlottesville region becomes more developed, it is important to maintain a connection with where food comes from and allow all residents the opportunity to provide food for themselves.

While large plots are typically run by the local municipality's Parks Department, which rents out plots for a small fee, other gardens and small farms are neighborhood driven, where a group of people get together to find land that can be used to grow food. These lots are more centrally located unlike larger plots that tend to be located on a city's edge. Research shows that residents make more use of gardens in their immediate neighborhoods rather than larger lots on the outskirts of town.

Neighborhood Based Gardens and Farms

- * provide more public space for residents
- * increase the amount of green space in a neighborhood
- * can convert an unsightly lot into a beautiful functional space
- * are more accessible to families and residents without cars
- * can help bring neighbors closer together
- * are imbedded in a community which keeps more eyes on the land and deters vandalism
- * allows a neighborhood to take ownership of the garden
- * encourage a deeper commitment among users

The long-term success of any urban garden or farm project depends on having a workable plan and adequate resources for on-going care. The steps below offer a brief outline of what is involved when people decide to convert a piece of land to a place for food production. Take some time to review the steps involved and develop an outline of activities to complete for your project.

Step 1

Identify undeveloped, unused lots in your neighborhood

Step 2

Conduct a site survey of these lots to establish feasibility. Determine if the lots are:

1. The right place for a garden (i.e. open space vs. forested land, too small, etc)
2. Currently being used for anything (trash dump, shortcuts, annexed yard space)

Evaluate selected sites using the following criteria:

- sunlight and shading patterns
- access to water (or the potential for future access)
- if the houses nearby have a lack of yard space
- vacant lot is an eyesore
- whether or not the nearest neighbors would be interested

Once a site is selected, take an inventory of all existing site conditions. This will help determine what must be done at a later date to prepare the site for growing produce.

Not able to find suitable land?

Consider these creative uses of space within Charlottesville:

School Sites

Many schools are interested in starting vegetable and flower gardens as a hands-on educational experience for their students and have the available space to do so. Yet, these gardens remain untended throughout the most productive months while students are on summer break.

Contact a nearby school to find out if they would be willing to work with neighbors on a joint garden project. Students still get the educational experience while residents take home produce during the summer and fall months. The residents gain access to city owned land and the school receives help with establishing the garden.

Paved sites

Just because a vacant lot has been paved does not mean it cannot be used for food production. Raised beds can be built on top of the pavement and filled with soil. Chicago's Fourth Presbyterian Church created 36 raised beds on top of concrete which have been abundantly producing fresh veggies for three years.

Churches

A large number of churches in Charlottesville have unused portions of land. Organize a group through your congregation to plan and create a community garden. The Thanksgiving Lutheran Church in Santa Rosa, CA started a garden to meet the need for fresh, local, affordable produce in their community. Within walking distance of two senior mobile home parks, their garden provides a place where "neighbors of different generations and cultures can work together and build community."

Step 3

Determine if the space is publicly or privately owned. This will determine which strategy to use in seeking permission to use the land. Charlottesville's tax assessor website can help with this. Go to www.charlottesville.org and check under the online services' tab. Also, you may ask about a property's ownership status in person at the City's offices. Prior to beginning any work, obtain permission from the owner of the site, or explore the possibility of acquiring the site.

Step 4

Map community resources. Take stock of your neighborhoods' resources including churches, neighborhood associations, and community based organizations. Who are potential partners or supporters? Organize a meeting with neighbors and other people who can or should care about a garden. Help them to understand what work is involved in starting and caring for a garden and start right away to work to gain their commitment to the project.

Step 5

Do you want to own or lease the location to insure it is protected? Ownership may be necessary in order to secure funding for improvements. See page/section X for land acquisition suggestions.

Residential Property

Many people may have enough space to garden in their own yard but do not have knowledge about gardening techniques. Starting a neighborhood group to encourage gardening

Growing Gardens, an Oregon nonprofit organization that helps low-income people to garden on their own land, surveyed many of the families involved with their program. Among Growing Gardens participants, there was a 44% increase in the number of households that ate fresh vegetables five or more times a week, and an 80% increase of the number of households that spent time outside more than five times a week after their garden was installed. The survey also indicated that 86% of the new gardeners share food with people who do not live with them and 32% say they have met neighbors through gardening.

Public right-of-ways

A right-of-way is the portion of street lying between the constructed curb and property line, exclusive of the sidewalk area. These areas, also known as planting strips, are publicly owned but are usually maintained by the abutting property owner. Using the planting strip for vegetable gardening can provide an attractive buffer between vehicular and pedestrian traffic. Choose locations that are on low-volume traffic streets and make sure that your plantings remain low to the ground so that a driver's view is not obstructed. A street use permit may be required before plantings are allowed so make sure to check with the City first.

Step 6

Research options for converting land

There are many creative ways to transform an underused piece of land regardless of how small it is.

Innovative techniques being used in other locations include:

Homeowners allowed to purchase small, adjacent unused public land at a low cost
Business owners adjacent to unused, unkept lots allowed to purchase or lease land for a nominal fee with the understanding that they will encourage and assist in using the area as a growing space (churches, daycare centers, community centers)

Tax incentive program to encourage owners to convert land through a community based gardening program

Other ideas:

Create a program to convert public right of ways to community (or homeowner) managed garden strips.

Adopt a garden program. Find people, businesses, institutions, neighborhood groups willing to adopt the lots and assist in converting it to a beautiful vegetable garden (also need people to be responsible for keeping the area clean and maintained)

Step 7

Decide on garden goals. Will there be raised beds or plantings directly in the ground? Should the garden have individually maintained plots or should it be a cooperatively

managed garden? Does this seem like a spot for permanent garden space or just a temporary beautification project until something is built there?

Step 8

Determine what resources are needed and/or available.

Step 9

Engage the community through partnerships, education, surveys.

Step 10

Develop a site plan and outline a maintenance strategy. Think about what it will take to keep a lot clean and well-tended throughout the year. Consider who may do the work and if funds will be needed to cover the cost.



Lynchburg Grows, Lynchburg, VA

Lynchburg Grows was formed as a not-for-profit corporation in 2003 with a mission to help all disadvantaged persons enjoy the healthy benefits of gardening and have access to such spaces.

The organization was launched in part due to co-founder Michael Van Ness' habit of driving around the City and envisioning what empty, unused lots would look like if converted to community gardens. Lynchburg Grows currently operates several locations throughout the City on land that was purchased from both public and private owners. Their newest location is a 6.5 acre farm with nine glass greenhouses located behind the City Stadium. The organization intends to provide workforce development and job training opportunities targeted at disabled and disadvantaged individuals. is responding to critical community issues by creating nutrition and food systems programming for elementary school children, implementing a vocational training program for disabled and low-income individuals, and organizing workshops for anyone interested in increasing their gardening efforts. Lynchburg Grows partners with numerous local organizations to demonstrate the importance of sustainable, local agriculture and healthy living.

The small farm will also provide educational opportunities for all citizens through classes on composting, care and maintenance of plants, lawns, trees, etc. Many of the vegetables that are grown will be donated to local food banks and the rest sold retail at the farmer's market, thus providing a stream of revenue for the organization and further promoting our mission by providing healthy produce and organically grown plants to interested buyers.

www.lynchburggrows.org

1339 Englewood Street
Lynchburg, VA 24506
(434) 846-5665



Lots to Gardens, Lewiston, ME

Lots to Gardens is a youth and community driven organization that uses urban agriculture to increase access to fresh food and nurture a healthy community. They teach people how to grow their own food while helping families and youth develop skills and build power for lifelong and community-wide change. Since 1999, Lots to Gardens has converted unused lots to fifteen gardens and greenspaces in four diverse neighborhoods.

Through Lots to Gardens' gardening and nutrition programs, hundreds of families and seniors have grown their own food, learned to value fresh and local produce, and learned to prepare nutritious meals. Through their youth training programs, sixty youth have given a summer of service to others; received job training, and participated in empowering themselves and their community. Hundreds of other youth and adults participate in the gardens as volunteers, learners, and leaders.

Their community food projects include:

Apartment-side and community gardens with more than sixty families and senior citizens. Many seniors garden in beds and containers right outside their apartment doors

For those without gardens, neighborhood vegetable stands provide affordable organic produce

Weekly community meals and garden events, cooking and nutrition classes, and activities at the Lewiston Farmers' Market

www.stmarysmaine.com/about/foundation/special/lots.html

PO Box 7291
Lewiston ME 04243
(207) 755-3110



The Lincoln Action Program, Saunders County, Nebraska

Making the most of donated land, the Lincoln Action Program and AmeriCorps collaborated with other service organizations to transform unused parcels of land into a series of seventy-six 8'x8' gardens in which low-income families will be able to grow produce.

Youth and youth groups assist families with the care of the garden sites. Watering, weeding, mowing, and general care of the gardens have continued to be done by youth throughout the community. A high school senior mows and waters the garden on a regular basis. In addition, a University of Nebraska faith-based group continues weekly maintenance of the gardens.

Support for the Community Garden Program comes from businesses, individuals, and church groups. Tools, seeds, water, land, and storage have all been donated by these groups.

www.lincoln-action.org

Community CROPS, Lincoln, Nebraska

Community CROPS: Combining Resources, Opportunities, and People for Sustainability increases food security for refugee, immigrant and low-income people in Nebraska through asset-based community development that provides resources and technical assistance to grow, market and add value to locally-grown agricultural products.

Starting with just one community garden in 2003, Community CROPS has become a successful program. In 2006, CROPS had six community garden sites, a training farm, ran a successful Community Supported Agriculture program, had a regular stand at the new Old Cheney Road Farmers' Market, organized workshops, and more.





Aerial View of parcels using GIS software.



View north west along Monticello



View towards Carlton Ave.; gently sloping grade

Urban Agriculture
Matthew Bernstine | Allison Mouch | Julie Ulrich



Description of Site:

parcel(s)	#600188000
	#600188100
	#600189000
	#600190000
	#600191000
	#600191100
	#600191200
	#600191300

Total Acreage = 1.385 AC

- * Zoned: R-1S, urban residential
- * Assessed Total Value: \$ 433,000
- * Lot acts as a gateway to Belmont neighborhood from Route 64
- * 3 bus stops located in close proximity
- * Located near Clark Elementary School





Aerial View of parcels using GIS software



View from West Street



Interior of parcel, showing existing water pumps

Description of Site:

parcel #310046000
846 West Street

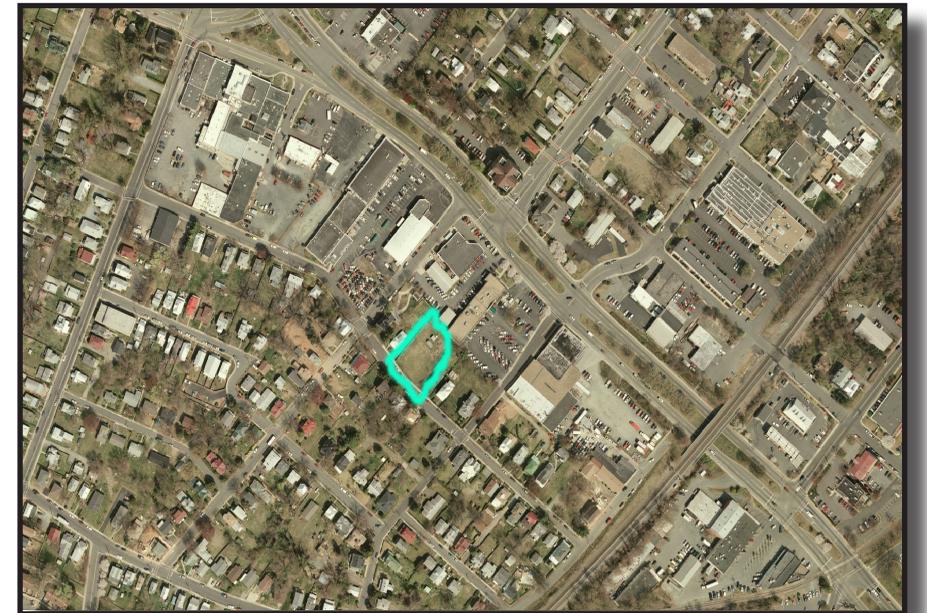
- * Zoned: R-1s
- * Assessed Value: \$36,000

Description of Site:

parcel #310049000
848 West Street

- * Zoned: R-1s
- * Assessed Value: \$39,200

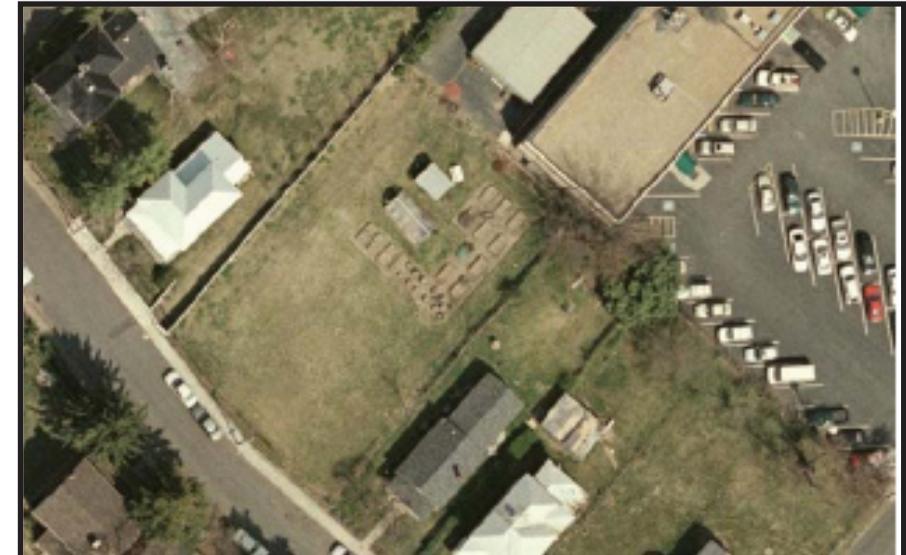
Total Acreage = .416



Neighborhood I.D.	Yes	Maybe	No	Notes
10th and Page				
1			n	parking lot
2			n	yard
3	y			great spot
4		m		maybe, being used as a yard?
5			n	side yards
6			n	no--yard fenced
7		m		not technically in 10th and Page but in good spot
8			n	No used as property
9	y			Yes
10			n	no used as yard
11		m		possibly
12	y			water pump on site--great site, Across from Region IX, fence on site, good space
13			n	no
14			n	no
15			n	unpaved church lot
16			n	no yard
17			n	no, for sale
18			n	used as yard
19			n	too close to houses
20		m		tiny
21			n	temporary trailers

- 10th and Page on 0.416 acres
 - Lettuce = 14,560 lbs. (35,000 lbs/AC)
 - Sweet corn = 4,826 lbs. (11,600 lbs/AC)
 - Strawberries = 17,804 lbs. (42,800 lbs/AC)

- Belmont on 1.385 acres
 - Lettuce = 14,560 lbs. (35,000 lbs/AC)
 - Sweet corn = 16,066 lbs. (11,600 lbs/AC)
 - Strawberries = 59,278 lbs. (42,800 lbs/AC)

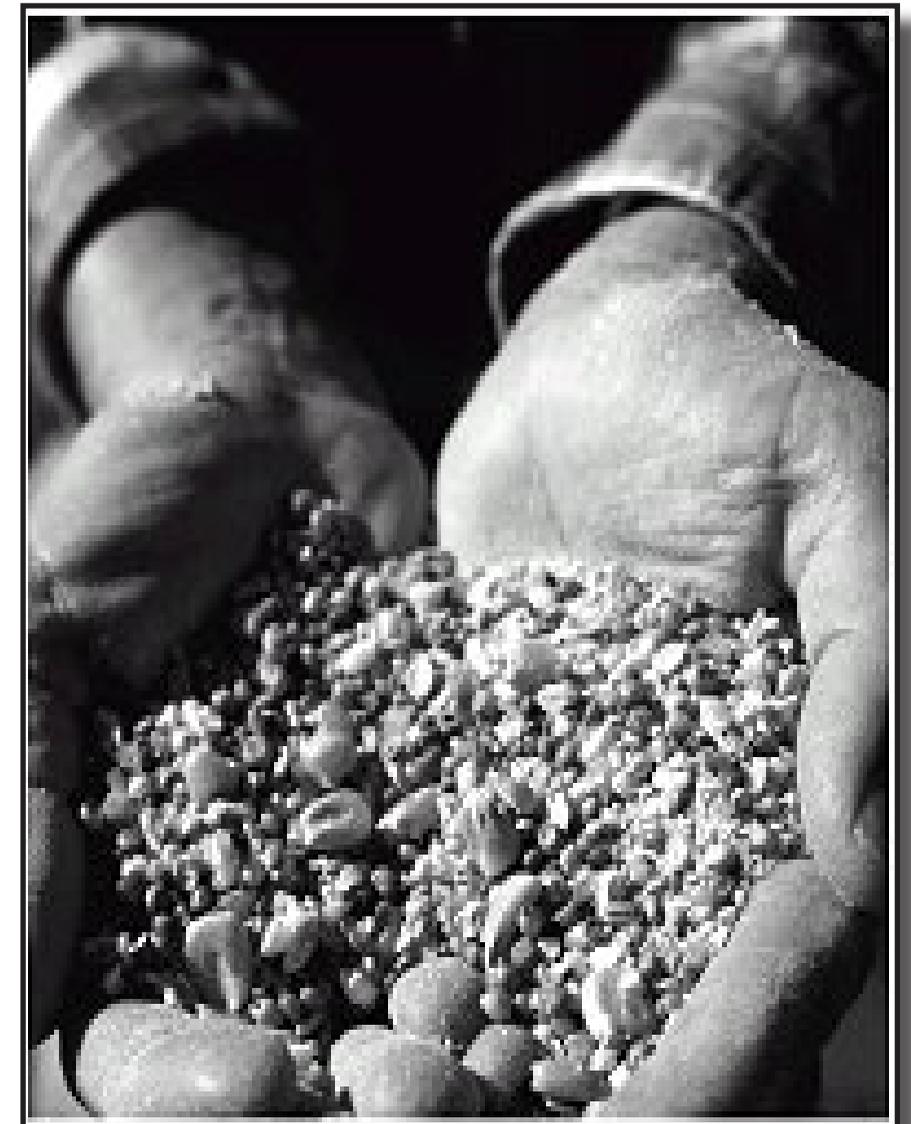


LAND ACQUISITION

One of the most common forms of property acquisitions is a 'buy-out', where the community (i.e. a community group, such as a non-profit organization) purchases private property from an owner willing to sell, acquires title to the land, and then clears it for the purpose of hazard mitigation. However, this template for land acquisition may also be applied to mitigation of vacant 'eyesores' in the urban landscape, and many communities do use this property tool to cultivate public parks, wildlife refuges, or community space. The one limiting factor is that the land may never be sold again to private individuals, and it can never be developed. However, this does not limit a community such as Charlottesville's ability to use the acquired land indefinitely for urban agriculture and farming purposes.

Public ownership of land or a parcel may be the best choice if and when local governments need to maintain full control of the land. In Charlottesville's case, we are operating under the assumption that the city will want minimal involvement in acquiring and caring for these urban gardens, and thus the control will fall into the hands of a non-profit organization. There may be some opportunity for the city to partner with the non-profit organization in a silent partnership to acquire land. This would be beneficial to the city, as it would make use of vacant, unappealing land while limiting their time commitment by placing management of the land in the hands of the non-profit. The city would only be required to provide matching funds so that the non-profit would have the means by which to purchase and cultivate the property accordingly. An example of this is being done in Norristown, Pennsylvania, where various non-profits, Montgomery County, the Department of Agriculture, the Municipality of Norristown have encouraged local gardening on public and private lands through direct financial partnerships and programmatic support

Typically, the process by which a public agency or nonprofit organization acquires land is very similar. The landowner and the purchaser (nonprofit or public organization) negotiate an option or an agreement by which they will purchase the land. This identifies the time at which the transfer will take place, as well as the price the land will be sold for (based on fair market appraisal). The



organizations then identifies and secures funding for purchasing the land, and conducts the various real estate transactions details such as land appraisal, environmental assessment, title investigation, and land survey(s). The final step is the transfer of land ownership and payment, formally known as the 'closing'.

There are a number of different ways in which to structure the purchase and acquisition of land to meet an organization's needs. Lease-purchase is one such method. An organization purchases a parcel through this type of agreement after making lease payments through an agreed-upon period of time; the title is conveyed to the organization after the last payment is made. Another option is to acquire land through an annuity agreement, where the organization purchases an annuity benefiting the seller and subsequently receives title to the land. The seller receives annuity payments at a set dollar amount over time.

In addition to lease purchase agreements and matching for private ownership, another great way to structure the acquisition of land for urban agriculture is through a land trust. Organizations such as The Community Land Trust and The Trust for Public Land provide models through which land can be donated or acquired at minimal cost and preserved for future use by the community. The true purpose of a land trust is to create a democratic institution to hold land and to retain the use-value of the land for the benefit of the community as a whole; in doing so, the land trust provides affordable access to land for such uses as agriculture, parks & recreation, conservation, and open space preservation. This type of use-value is precisely what not-for-profit groups promoting urban agriculture intend, thus making land trusts a viable option for a non-profit to consider when implementing urban agriculture in Charlottesville.

It should also be stressed that land acquisition does not always have to be a permanent investment for non-profit organizations. Through grass roots initiatives such as land trusts, land is removed from the market so that development is no longer an option; however, there are lease agreements that can be worked out between local



non-profits and developers that would benefit both groups' (short term) interests while creating awareness and support for urban agriculture in the long term. Since much of the land in and around cities such as Charlottesville is in high demand and therefore privately owned, structuring a temporary relationship for a community garden becomes a viable option for non-profits seeking the use of such lands. In this manner, land that is unused by the developer (for at least 3-5 years) can be leased by an interested organization who pays the tax value of the property, enabling the developer to break even on their land without having to pay tax out of pocket for land that is not currently being utilized. In the long term, however, the developer can reclaim their land after the lease has expired. While this can be frustrating for community members who may grow attached to a garden only to see it developed after a period of time, the contractual agreement can stipulate that the developer must provide a certain amount of acreage on the developed parcel (or comparable acreage close by) to mitigate the land lost by the community. Although not a perfect solution, this option allows both parties temporary satisfaction ~ community members gain land on which to implement urban agriculture opportunities, while the developer does not feel their investment in the land has been lost. This option also promotes awareness of urban agriculture, and although some gardens may be temporary, their presence may encourage more gardens to become established in more permanent locations!



Recommendations

Local governments can help create an environment where all residents have access to affordable and healthy food in their communities. Compared to many other strategies for increasing access to nutritious foods, community gardens and small scale farms can be an inexpensive and cost-effective option for local governments. Long term support does not necessarily require large and continued funding sources. Instead, support can be as simple as providing basic information.

As a result of our research, our team is proposing the following policy recommendations to the City of Charlottesville:

1. Make the tax assessor database more accessible to the community. Provide instructions on how to interpret the tax maps as well as steps to take in identifying a vacant parcel.
2. Form an Urban Agriculture Committee consisting of citizens and a city representative. This committee would make recommendations on plans and policies that relate to urban agricultural issues.
3. Adopt a formal policy on urban agriculture that can be incorporated into the Comprehensive Plan. This policy would help the City provide a vision for the future of urban agriculture in Charlottesville.
4. Provide community space on the City's website for the creation of a land share database. This would be a place where residents who own land but do not want to garden or farm on it can post their information and those residents who do not have space to garden but would like to can also post their information.

Place an advertisement for this service at regional libraries for those people who may not have home website access.

Community Recommendations

1. Start a non profit organization such as the Charlottesville Community Food Systems Collaborative, to provide a foundation for urban agriculture projects in the City.
2. Hold an outreach campaign to gauge the level of neighborhood interest for urban agriculture projects in the Charlottesville. Use neighborhood meetings, churches, and the City farmer's market to survey people on whether or not they would be likely to use a garden or farm site if one were available to them.

Access

Food significantly shapes the quality of life for ourselves, families, and communities. Access to fresh nutritious produce is the foundation for a healthy existence. However, despite the agricultural bounty of Central Virginia and the surrounding region, many economic and social factors limit the food choices of many Charlottesville residents.

Issues that provide obstacles to accessing healthy food options:

Transportation

Many of Charlottesville grocery stores are located on the edges of town. People without access to a car or adequate public transportation have a difficult time getting to places that sell affordable healthy foods. In the 2006 preliminary assessment of the Charlottesville region food system, analysis showed that less than 60% of households owned cars in three downtown neighborhoods. For those residents that do make the distant trip to a grocery store via cab or public transportation, the cost of the trip can decrease the amount they are able to spend on groceries.

Lack of options

In urban areas and town centers, corner stores and gas stations are often the only nearby shopping options. The selection of food sold in these stores rarely consist of healthy fresh foods and can cost up to 49 percent more than in chain grocery stores. In addition, low-income areas typically have one-third fewer full-scale grocery stores than middle and high-income neighborhoods.

Children are especially limited in their food choices since they are dependent on what others give them. Parents and schools are the two sources of providers for children's meals. If they are not able to eat healthy food at home, their school lunches may be the only opportunity to receive fruits and vegetables during the day.

Education

Unfamiliarity with healthy foods and limited knowledge of cooking preparation can increase consumption of prepackaged and highly processed meals.

Expense

Residents and families on a tight budget must seek out less expensive foods. People depending on food stamps are typically allotted only \$87 a month to spend on groceries - this translates to roughly less than \$3 a day for food. Clearly, cheaper foods are the easiest to buy with limited finances. Unfortunately, cheaper foods are rarely fresh fruits and vegetables but often foods that are high in calories and fat.

Barriers

Incomplete picture of the vacant land

Resources available for identifying vacant lots are inconsistent and incomplete since they are not updated every year. It can be difficult trying to create a comprehensive picture of current vacant lots in the city. While the tax map website can be of assistance, talking to people at the City and in your neighborhood may be the best way to determine who owns a certain piece of property.

Lack of funding for revitalization efforts

Even though many benefits can be obtained from urban agriculture projects, locating funding to ensure success can be challenging. For both City or privately owned land, public-private collaborative efforts will play a vital role in the future of your project. There are many local, state, and federal level programs that provide monetary assistance for neighborhood based agricultural projects. Your garden may also be eligible for grants that are designed to assist projects promoting regional livability and environmental sustainability. Please see the resources section of this guide on page X for a list of initial places to contact.

Garden Permanency

In locations where housing is in short supply and vacant land is limited, community gardens and farms may be displaced in order to make way for tax generating development. Taking steps to ensure a gardens' permanency early in the process could help save plots threatened by development.

Water Source

Most sites selected for urban agriculture will not have a readily available source for water. It is possible to work with the City on an arrangement that splits the cost for water hook up and fees.

Not able to find suitable land?

Consider these creative uses of space within Charlottesville:

School Sites

Many schools are interested in starting vegetable and flower gardens as a hands-on educational experience for their students and have the available space to do so. Yet, these gardens remain untended throughout the most productive months while students are on summer break. Contact a nearby school to find out if they would be willing to work with neighbors on a joint garden project. Students still get the educational experience while residents take home produce during the summer and fall months. The residents gain access to city owned land and the school receives help with establishing the garden.

Paved sites

Just because a vacant lot has been paved does not mean it cannot be used for food production. Raised beds can be built on top of the pavement and filled with soil. Chicago's Fourth Presbyterian Church created 36 raised beds on top of concrete which have been abundantly producing fresh veggies for three years.

Churches

A large number of churches in Charlottesville have unused portions of land. Organize a group through your congregation to plan and create a community garden. The Thanksgiving Lutheran Church in Santa Rosa, CA started a garden to meet the need for fresh, local, affordable produce in their community. Within walking distance of two senior mobile home parks, their garden provides a place where "neighbors of different generations and cultures can work together and build community."

Residential Property

Many people may have enough space to garden in their own yard but do not have knowledge about gardening techniques. Starting a neighborhood group to encourage gardening

Growing Gardens, an Oregon nonprofit organization that helps low-income people to garden on their own land, surveyed many of the families involved with their program. Among Growing Gardens participants, there was a 44% increase in the number of households that ate fresh vegetables five or more times a week, and an 80% increase of the number of households that spent time outside more than five times a week after their garden was installed. The survey also indicated that 86% of the new gardeners share food with people who do not live with them and 32% say they have met neighbors through gardening.

Public right-of-ways

A right-of-way is the portion of street lying between the constructed curb and property line, exclusive of the sidewalk area. These areas, also known as planting strips, are publicly owned but are usually maintained by the abutting property owner. Using the planting strip for vegetable gardening can provide an attractive buffer between vehicular and pedestrian traffic. Choose locations that are on low-volume traffic streets and make sure that your plantings remain low to the ground so that a driver's view is not obstructed. A street use permit may be required before plantings are allowed so make sure to check with the City first.

The RUAF Foundation: Resource Centres on Urban Agriculture & Food Security. “The Urban Agriculture Magazine”
<http://www.ruaf.org/node/101>

The Food Project: Urban Agriculture
<http://www.thefoodproject.org/agriculture/index.asp>

Urban Agriculture by City Farmer: “Canada’s Office of Urban Agriculture”
<http://www.cityfarmer.org/>

Land Acquisition Guidelines for Nonprofit Organizations. <http://www.dnr.state.wi.us/org/caer/cfa/grants/forms/LandAcquisitionGuidelinesNCO.pdf>.

Bureau of Community Financial Assistance, Wisconsin Department of Natural Resources
 January, 2004

Funding Mechanisms for Land Acquisition. http://www.ncseagrant.org/files/wasc_fundingmechs.pdf

N.C. Coastal Resources Law, Planning, and Policy Center
 February 12, 2007

1000 Friends of Minnesota. [Land Conservation Tools Fact Sheet](#)

Local Organizations

EAT Local

A regional group in the Charlottesville area working toward a sustainable community food system for the greater regional foodshed.
sustcomfood@list.mail.virginia.edu

Quality Community Council (QCC)

A grassroots community organization promoting civic engagement and grassroots leadership to improve the quality of communities throughout Charlottesville. <http://cvilleqcc.com>

Funding Mechanisms for Land Acquisition

http://www.ncseagrant.org/files/wasc_fundingmechs.pdf
 N.C. Coastal Resources Law, Planning, and Policy Center
 February 12, 2007

Land Acquisition Guidelines for Nonprofit Organizations

<http://www.dnr.state.wi.us/org/caer/cfa/grants/forms/LandAcquisition-GuidelinesNCO.pdf>

Bureau of Community Financial Assistance, Wisconsin Department of Natural Resources. January, 2004

Urban Agriculture by City Farmer: Canada's Office of Urban Agriculture
<http://www.cityfarmer.org/>

Cities Farming for the Future (CFF)
 Policy Advice, Action Planning, Training and Information Exchange
<http://www.ruaf.org/node/448/print>

The Food Trust
<http://www.thefoodtrust.org>

1. Rebecca Flounoy and Sarah Treuhaft, *Healthy Food, Healthy Communities: Improving Access and Opportunities Through Food Retailing* (Oakland, Calif.: PolicyLink and the California Endowment, 2005), available online at
<http://www.policylink.org/pdfs/HealthyFoodHealthyCommunities.pdf>.

2. Marla Hollander, Leslie Robbins, and Tracy Westfield, *Active Living Leadership: A Primer on Access to Healthy Food for Government Officials* (Princeton, N.J.: Robert Wood Johnson Foundation, 2005), available online at http://www.activelivingleadership.org/pdf/file/all_government_primer.pdf.

Funding Resources

The Urban Land Institute

Community Action Grants Program

"Through the program, created two years ago, up to \$200,000 in seed capital is available from the ULI Foundation Annual Fund to be distributed as grants to district councils or ULI members on behalf of nonprofit organizations for entrepreneurial programs that aim to improve urban growth in their communities."
 – Could be applicable to urban agriculture as an economic tool for community growth and wellness.

<http://www.uli.org/>

Community Food Security Coalition

The Community Food Projects (CFP) Competitive Grants Program provides the major funding source for community-based food and agriculture projects nationwide. Approximately \$4.6 million in funds will be granted in 2007.

<http://www.foodsecurity.org>

The American Farm Bureau

Foundation for Agriculture

<http://www.fb.org>

Methodology

In an attempt to accurately portray the steps our group took in our own urban agriculture analysis, we have provided a more detailed methodology that can be referenced and applied to future projects in Charlottesville or other communities. Our approach follows the recommended methodology presented in our guide book, elaborating on personal experience and knowledge gained throughout the process.

1. Identify Vacant Lots

In beginning our analysis of the city of Charlottesville and the existing vacant lots around town, preliminary GIS maps were drawn up to identify vacant land in three distinct neighborhoods. These areas were chosen very specifically with regard to their socio-economic composition. As previously stated, our objective throughout this project was to introduce the potential for agriculture to urban core groups who are less likely to have the means by which to garden or grow their own crops. They are also less likely to have access to fresh food, have less education alerting them to the necessity for variety and choice, and are economically unable to purchase healthier foodstuffs, in general. These groups are typically identified as low-income minorities, therefore our preliminary surveys of vacant lots took place in three neighborhoods within the city of Charlottesville that fit this socio-economic profile; Fifeville, 10th & Paige, and Belmont.

2. Site Survey

After reviewing the preliminary maps and census data, our group set out to visually assess the vacant lots identified through GIS and city records. Our ultimate goal in doing this was to determine whether the identified lots were feasible as potential garden plots. For instance, if a vacant lot was heavily wooded, completely paved, or too small, the lot did not offer adequate benefits to convert the land into a community garden. These sites were identified as being non-conducive to our goals and objectives. Other sites exhibited properties that made them somewhat feasible, but only with further investigation. Examples of such sites would be lots that seemed under use by a neighbor (for instance, a junk yard or scrap heap indicated use, albeit temporary). Certain lots had topographic constraints, while others did not exhibit the ideal characteristics we were looking for. Such lots were identified as potential gardens spaces, but were kept on reserve.

The lots identified as being optimal for urban agriculture exhibited at least two or more characteristics that made them prime candidates. Ample sunlight, existing access (or potential access) to water, housing nearby with a lack of yard space, close proximity to a school, bus service, or location as a potential “community hub” were all conditions considered extremely beneficial to the siting of a potential neighborhood community garden. Whether or not the site is considered an eyesore was also important, as the community support associated with cleaning up a vacant lot or abandoned parking area could work to the benefit of whatever non-profit

takes on the clean-up and development. Were we to continue with the site assessment, we would also need to meet with neighbors adjacent to the site and in the surrounding neighborhoods to identify whether or not this type of community garden would be welcome and prosperous in the presumed location. Engagement of the community and support of each identified neighborhood would begin at this stage of development.

3. Develop Maps & Visual Tools

The next step in this process was to compile our information on the vacant land parcels in and around Charlottesville to create a visual map document from which to work from. We started by providing a general GIS database map identifying the vacant lots in each target neighborhood, color coded to alert the reader as to which lots were unsuitable versus suitable for growing food/cultivating an urban community garden.

We also chose to include maps compiled in previous years/studies, such as the grocery store location map completed by last year's community foods class. Their research helped us to establish our neighborhood boundaries and site selection guidelines, based on community access to healthy, fresh, locally driven produce; therefore, we felt it was important to have this map as part of our research model for other community non-profit organizations to study and have access to.

Close up aerial maps were also developed for each of the three neighborhood sites focused on. These aeriels were produced to more clearly identify the size, address, residential units in close proximity, zoning information, pedestrian access (or potential), accurate grading and topography, nearby schools, senior centers, or community landmarks, among other things. The aeriels are included in the section of our guide focusing on case studies.

4. Establish Priorities for a Demonstration Program

After conducting our survey (on foot) of the vacant land identified throughout Charlottesville, dividing the parcels into categories respective of their viability as urban agriculture gardens, we chose three sites (one from each focus neighborhood) that best met our prime characteristics to compare and contrast through a basic case study. Looking at these three sites in further detail allowed us to apply the knowledge and resources being compiled to an actual site, providing case study research for future non-profits looking to apply a similar toolkit in similar situations. These three sites became the basis of our general analysis and served as "what if" scenarios from which to research funding, feasibility studies, and community involvement.

Ideally each site could be considered significant as a 'gateway' site into each neighborhood, visible to traffic or major thoroughfares yet removed enough to be privatized and community oriented. Location near or along a prime arterial was also considered to be important in choosing these three sites. Where there was

the opportunity to purchase multiple parcels near one another, as in Belmont or along 9th/10th Extended in Fifeville, these lots were given high priority and considered of great benefit to the surrounding community.

5. Investigate Legal Options & Precedents

In order to better understand the potential for urban agriculture in a city such as Charlottesville, a large portion of our time was spent reviewing existing case studies and legal support and/or potential drawbacks for urban agriculture here in Virginia. Careful review of the Charlottesville Zoning Ordinance, discussions with members of the city municipal government and planning division, as well as continue internet research and policy scans of existing cities or non-profits looking to do similar work was all part of our research model, with the intent to include as much helpful information in our start-up guide for non-profits as possible. This portion of our methodology flowed seamlessly into our sixth step, which entailed researching options for converting vacant (privately-owned) land into urban community gardens.

6. Research Options for Converting Land

Knowing who owns land in question and the appropriate steps necessary to obtain that land for community use is vital knowledge in a policy recommendation for urban agriculture. It is also highly conditional on regional and municipal governance and approach, and thus leaves a number of steps and applications in question, depending on the when, what, and where of a potential urban agriculture endeavor.

Specific areas we focused on were obstacles that may potentially crop up when implementing urban agriculture in Charlottesville; land acquisition by a neighboring public or private party through a purchase or lease agreement (this may or may not be possible in Charlottesville due to a minimal amount of vacant land); tax incentive programs that would encourage owners to convert land into community garden space; adopt a garden programs; ownership and leasing agreements that would insure the land was protected and the space kept free for future urban agriculture programs; conversion of public rights of way into viable community garden plots; the city of Charlottesville's responsibility in growing and maintaining a community gardening program and the conversion of vacant lots identified.

While this list of topics is fairly comprehensive, our intent was to provide start-up non-profits with the information and tools necessary to tackle an urban agriculture program in Charlottesville or beyond. We understood that what information we were able to glean from available resources would be less than complete (given our time frame), but felt it important to include the basic information as a way in which to promote the process as much as the end goal.

7. Determine Resources Needed & Available

Figuring out what resources are currently available to you (in an effort such as urban agriculture) is vitally important. This allows you to focus on gaining the support and contingency of key players that may not be familiar with the urban ag concept, or who may need convincing of its relevance. Organizations we identified as potential partnerships in the Charlottesville area included the University of Virginia's School of Architecture, specifically the landscape and planning departments. Americorp and the American Farm Bureau Federation were identified as potential resources with a larger regional influence, while the Charlottesville Business Association & Chamber of Commerce could be tapped to engage local community networks and tourism. Existing organizations such as E.A.T Local and CCDC would also be key partners in the development of an urban agriculture movement here in Charlottesville.

8. Community Involvement

Within the context of community involvement, our group looked at potential steps to take in order to engage the community, neighborhood groups, youth organizations, schools, and city government in an open dialogue on food policy and safe, sustainable networks of urban agriculture. Community awareness and active participation is a key element in a successful urban foods program, and it is one that is often overlooked in the process towards creating active, viable agriculture and farming programs. What does the community need is as important a question as what the community wants, or what the community can take on with limited resources and direction. In an effort to engage neighbors we recommended posting flyers around neighborhoods with viable urban ag options (such as Belmont, Fifeville, and 10th & Page) - this assures that even community members without access to the internet would have the ability to be involved in the organization and follow-through of an urban garden program. Face-to-face contact, neighborhood canvassing, and phone polls are also not be overlooked during the start-up of an urban agriculture endeavor; accessibility breeds assurance and increases participation immensely.

We also explored the potential to involve church groups, schools and after school programs, neighborhood associations, community and elderly centers as a way to increase awareness and participation, as well as building upon fundamental community resources already worthy of the public's trust and commitment. Again, asking neighbors about their preference for a community garden, appropriate locations, management solutions and oversight, responsibility, design features, and resource sharing should all be conducted prior to moving forward toward land acquisition.