WORK BOOK

CoMMUNITY GARDeNS

Your guide to understanding, starting and sustaining a community garden in your neighborhood.

the elemental group
advancing the health and livability of our communities

St. Luke's Health Initiatives
A Catalyst for Community Health

MARICOPA COUNTY EXTENSION GARDEN,
PHOTO BY EILEEN KANE (FLICKR: CC)

INTRODUCTION

Over the course of the last four years, a series of participatory community workshop charrettes were held in several Phoenix neighborhoods. Facilitated by graduate students from ASU and the Elemental Group, LLC and supported by St. Luke's Health Initiatives, these charrettes brought residents and community leaders together to discuss what was working within their communities and what needed improvement. At each charrette it quickly became clear that there is an abundance of social and human capital within each neighborhood and that as a result, many good things are happening: People are starting and supporting community gardens; people are creating opportunities for youth to learn job skills; and people are creating educational and economic venues for community members to realize their potential.

At each charrette, residents also outlined aspects of their communities that required action. Significantly, even though each of the communities is distinct with its own character, many of the identified areas of need are similar. Nearly all residents cited the need for better access to healthy foods, safe and accessible outdoor areas for recreation and public transportation as well as greater opportunities to showcase their talents and increase household income. Many residents and community leaders expressed eagerness to work to bring these improvements to their neighborhoods. Responding to that desire, four resource workbooks have been created to provide information and guidance on how to get started. All four workbooks build on the ideas and work generated from the charrettes.

Addressing four primary areas for improvement, the workbooks focus on 1) starting and maintaining community gardens; 2) increasing opportunities for physical activity for children and adults; 3) providing detailed information on how to increase resiliency within communities and 4) developing urban agriculture as an income generator and as a means to teach job skills. Within each workbook, design ideas generated by the ASU students are included. These design drawings provide an idea of how a particular element might look when fully implemented and can serve as inspiration to move a project forward.

We would like to thank the many charrette participants for inviting us into their communities to share their hopes and desires. Their enthusiastic commitment to improving their neighborhoods is an inspiration. The participating communities were Maryvale through the Maryvale on the Move project; South Phoenix through the South Phoenix: Grounded and Growing and CUSP initiatives; and the Gateway, Eastlake/Garfield, Midtown, Uptown and Solano neighborhoods from the Reinvent Phoenix project. Although not all Phoenix communities partook in the charrettes, the resource and information provided in each of the four workbooks is applicable beyond the boundaries of the participating neighborhoods.

WHAT IS A CHARRETTE?

A charrette is an intensive planning session where citizens, designers and others collaborate on a vision for development. It provides a forum for ideas and offers the unique advantage of giving immediate feedback...it allows everyone who participates to be a mutual author of the plan.

Source: http://www.tndtownpaper.com/what_is_charrette.htm

CONTENTS

LEFT: MESA URBAN GARDEN (MUG), PHOTO BY DAVID CRUMMEY (FLICKR: CC).
ABOVE: PHOTO BY SCOTT BAUER, USDA-ARS

WHaT IS a CoMMUNITY GARDeN?

Community gardens come in a variety of forms but at their core are defined as any piece of land, either publicly or privately owned, where plants are grown and maintained by a group of people in the community (www.publichealthlawcenter.org). However, in practice they are much more. Community gardens are sources of fresh produce, places for physical exercise, community gathering sites and educational places.

Often community gardens have a specific focus such as providing job and leadership training or growing specialty foods not available in local supermarkets. As Denver Urban Gardens notes, "a community garden is a unique and inclusive community space; it reflects the personality and tells the story of the gardeners and the neighborhood that surrounds it. It is a neutral space, a place where people from all backgrounds gather, meet and share" (dug.org).

Types of community gardens range from traditional neighborhood gardens that feature subdivided plots tended by individuals or families to gardens associated with a place of worship or community center to gardens with specific purpose such as job training or stocking a food pantry. The following list provides a snapshot of the variety of community gardens currently operating locally and around the country.

Traditional Neighborhood Community Gardens

Separate garden plots that are rented to families or individuals to grow food. Gardeners work together to organize gatherings, community work days and daily operations. Typically there are ten or more garden plots in this type of garden.

Local examples:

- Garden Patch Community Garden, Avondale, AZ
  www.avondalegardenpatch.com
- Native Health Community Garden, Phoenix, AZ
  www.nativehealthphoenix.org/community-garden

PHOTO BY AMANDA MILLS, CENTERS FOR DISEASE CONTROL AND PREVENTION

PHX RENEWS,
COMMUNITY GARDENS,
PHOENIX, AZ.
PHXRENEWS.ORG

Intergenerational Community Gardens

Brings together youth, adults, seniors and/or people with disabilities to learn about gardening, each other and their community.

Local example:

- Garden of Tomorrow, Phoenix, AZ
  www.tigermountainfoundation.org/programs.html

GARDEN OF TOMORROW

"WHEN I BECAME MAYOR, I RECOGNIZED THE NEGATIVE IMPACT VACANT LOTS HAVE ON OUR COMMUNITY AND BUSINESSES. SO, WE GOT TO WORK TO BRING BUSINESSES, COMMUNITY MEMBERS, AND NON-PROFITS TOGETHER TO TRANSFORM THESE LOTS INTO NEW OPPORTUNITIES."

GREG STANTON, MAYOR OF PHOENIX

PHOTO BY SCOTT BAUER, USDA-ARS

Affordable Food Community Gardens

Provides fresh food at affordable prices to the local community.

National example:

- Growing Power in Milwaukee, Madison, Chicago
  www.growingpower.org/index.htm

Demonstration Community Gardens

Generally open to the public, demonstration gardens act as open air classrooms, providing education on a particular set of topics or issues.

Local example:

- Nuestra Tierra Demonstration and Market Garden, Tucson, AZ
  communityfoodbank.com/programs-services/alphabetical-list/market-and-demonstration-garden

Economic Empowerment and Entrepreneurial Gardens

Gardeners are supported with training and technical assistance to help them start new businesses.

Local example:

- New Roots Garden, Phoenix, AZ
  www.rescue.org/us-program/us-phoenix-az

National example:

- Durham Inner-City Gardeners (DIG), Durham, NC
  www.seedsnc.org/dig

NEW ROOTS GARDEN, PHOENIX, AZ

Job Training/Market Gardens

Provide job and leadership training to gardeners; often associated with a farmer's market. Many of these gardens offer gardeners paid (transitional) employment.

National examples:

- Seeds of Success, Duluth, MN, www.communityactionduluth.org/seeds
- Toledo GROWS + CITE + Lucas County Youth Treatment Center (specifically for juvenile offenders), Toledo, OH www.toledogarden.org/toledogrows/toledogrows-partners

Youth Enrichment and Education Gardens

Experiential learning for children and adolescents.

Local example:

- Orchard Community Learning Center, Phoenix, AZ www.orchardlearningcenter.org

National example:

- Seeds Summer Camp, Durham, NC www.seedsnc.org/childrens-gardening-and-cooking-programs

Food Pantry Community Gardens

Food is grown to donate to a local food pantry.

Local example:

- Escalante Community Garden, Tempe, AZ www.tempeaction.org/escalante-community-garden/

Institutional Community Gardens

Gardens associated with public or private institutions including places of worship, hospitals, community centers and government facilities.

Local example:

- Golden Gate Community Center Community Garden, Phoenix, AZ www.goldengatecenter.org

Sensory Community Gardens

Specifically designed to appeal all of the senses. Plants grown range from ornamental to food crops.

National example:

- Please Touch Community Garden, San Francisco pleasetouchgarden.org/

ORCHARD COMMUNITY LEARNING CENTER CHICKEN COOP AND COMMUNITY PLOTS, PHOENIX, AZ, PHOTO BY AMANDA CLAYTON

BENeFiTS OF CoMMUNITY GARDeNS

According to Designing Healthy Communities, community gardens "play a significant role in enhancing the physical, emotional and spiritual well-being necessary to build healthy and socially sustainable communities"* As people come together to create and maintain a garden, they: 1) socialize with neighbors, family, seniors and children; 2) develop cross-cultural connections; and 3) grow healthy food for themselves and to share with the broader community. All this works to increase community ownership and build social capital, those important relationships and networks that help sustain and grow a thriving community.

The benefits of community gardens extend beyond creating and strengthening community connections. They include: 1) improved overall health of participants attributable to reduced stress levels; 2) healthier eating and increased physical activity; 3) lower family food budgets due to access to inexpensive fresh fruits and vegetables; 4) possibility for employment, economic development and neighborhood revitalization; 5) opportunities to learn about horticulture and positive environmental practices such as composting and recycling; and 6) the preservation and beautification of neighborhood green space. Some research suggests that community gardens reduce crime and increase surrounding property values.**

* http://designinghealthycommunities.org/role-community-gardens-sustaining-healthy-communities/

** Garvin, E., Cannuscio, C. and Branas, C. (2013). Greening vacant lots to reduce violent crime: a randomized controlled trial. Injury Prevention, 19(3): 198-203.; Voicu, I. and Been, V. (2008). The Effect of Community Gardens on Neighboring Property Values. Real Estate Economics, 36(2): 241-283.).

THE BENEFITS OF COMMUNITY GARDENS EXTEND BEYOND CREATING AND STRENGTHENING COMMUNITY CONNECTIONS.

PHOTO BY BOB NICHOLS, USDA NRCS

STaRTING a CoMMUNITY GARDeN

Creating a community garden takes planning. To get the garden up and running, you will need to assemble a core group of gardeners, decide what type of garden will be created, select a site and secure the appropriate permits and insurance, identify the resources you will need, and establish a leadership team and maintenance plan.

Building the Team

To begin a community garden, you need to find a few interested people who have the time and energy to commit to the project. Talk with your neighbors, local organizations and others about your idea. Hold meetings to determine interest and develop ideas. If people express concerns about putting a community garden in their neighborhood, make sure you address those up front to avoid future problems.

To avoid having one person doing all of the work, form a manageable size planning team comprised of people with different strengths. While knowing how to garden is not a prerequisite to starting a community garden, having someone who has some experience can be helpful. If you will need to fundraise, team members with city and business contacts could facilitate those efforts.

Denver Urban Gardens (dug.org) recommends putting together three primary committees to keep the garden running smoothly:

- **Steering Committee:** Three-person committee that conducts the garden's business:
  - Administrator: responsible for communication activities including setting meetings and agendas, leading meetings, writing minutes and maintaining guidelines and records.
  - Membership: assigns empty plots, deals with inquiries and waiting list, tracks member work hours.
  - Treasurer: manages budget, maintains financial records and conducts financial business including collecting fees, paying bills, and so on.
- **Community Building Committee:** outreach activities such as donation program, events, newsletter and so on.

ORCHARD COMMUNITY LEARNING CENTER, PHOENIX, AZ,
PHOTO BY AMANDA CLAYTON

- **Maintenance Committee:** upkeep of garden, organizes working groups for individual maintenance projects.

Community gardens take work and responsibility, so make sure the team you put together is committed to the project!

Determine What Type of Garden to Create

As a group, identify who will be the community for your garden. Do you anticipate that the gardeners will be your neighbors or would you like to work with a specific group of people such as youth or seniors or refugees? If you decide the garden will be for your neighbors then choosing a traditional community garden with multiple plots for residents to grow food would be a good choice. On the other hand, if the team is interested in creating a garden that showcases specialty crops, then create a garden that brings together a diverse group of people from the larger community. It may be that the team identifies what currently exists within the community (such as individuals with special skills or a local organization) and creates a garden that utilizes and builds on those assets. There are many possibilities so it is important for the garden team to spend time brainstorming and discussing what issues are important to the team and the community.

Choosing a Site

When selecting a site for the garden, it is necessary to consider a variety of factors including land ownership, current zoning, any utility easements and water access. The following checklist will help the decision process.

TOP: PHOTO BY SCOTT BAUER, USDA-ARS.
BOTTOM: GARDEN OF TOMORROW, PHOTO BY THOMAS FISCHER

- ☐ Does the lot have the appropriate zoning for a community garden? This is very important to determine before any further planning is done. If the current zoning for the site does not allow community gardens, you will need to apply for a use permit. Contact the planning department of the local jurisdiction for more information.
- ☐ What size is the lot? Will there be enough space for all of the gardeners, tools and tool sheds, composting and communal spaces?
- ☐ How many hours of sun does it receive per day? Is there shade available on the site or will you need to add shade?
- ☐ Does the site have good quality soil? Learning what the site has been used for in the past will help you determine if the soil is contaminated. It will cost much less if you do not have to replace existing soil.
- ☐ What is the terrain like: flat, sloped, hilly? Flat or slightly sloped sites generally work best. Avoid hilly sites that will require grading as this can be quite expensive and will have to comply with local regulations regarding site drainage.
- ☐ Is there good visibility? This will increase interest and awareness of the garden as well as safety.
- ☐ Is there water access? Contact the local water department to determine who supplies the water for the site.
- ☐ Is there access to power? This may or may not be important depending on what activities you intend to have at the garden.
- ☐ Is there vehicle access? Being able to drive a truck onsite can be very helpful.
- ☐ Be sure to contact your future garden's neighbors! Meet the adjacent property owners and residents to discuss your plans. This will help allay any concerns they might have regarding increased activity on the street and other potential impacts from the garden and you might find some eager gardeners living right next door!

Getting Permission to Use the Land

Once you have determined that a site meets your criteria and have identified the owner, you will need to contact the owner and get permission to use the land for your garden. A private landowner may be more amenable to signing a use agreement if you can demonstrate that you are well-organized, that you have neighbors on-board with the garden and that you can demonstrate that a community garden is a permitted use on the property. If possible, try to sign at least a 3-year lease.

Quite often, it will be necessary to obtain liability insurance. This will protect the landowner from any injuries or other problems incurred on the site. To keep costs down, it might be possible to work with a neighboring business or non-profit and have a rider put on their insurance.

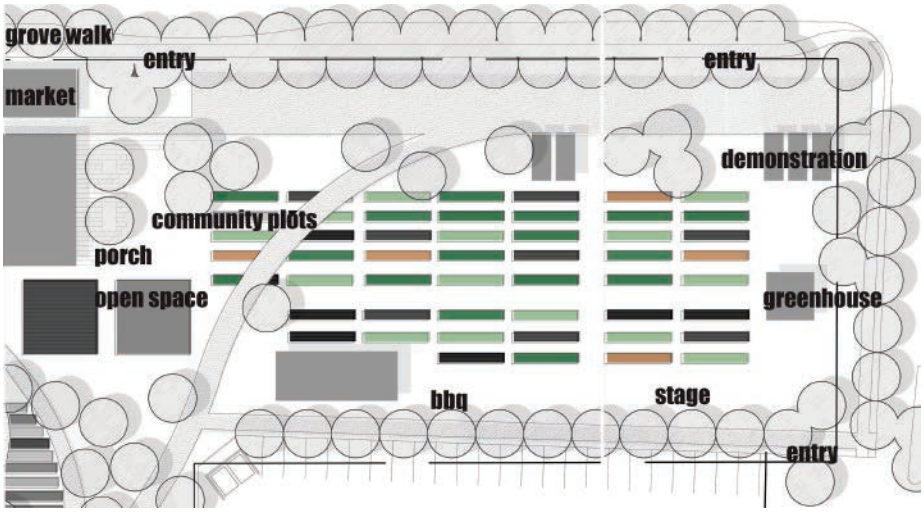
It is also a good idea to have everyone that participates in the garden sign a "Hold Harmless" agreement.

Many community gardens become Limited Liability Companies or apply for non-profit status allowing them to apply for additional grants and receive tax benefits. This is something your garden team should discuss as a group.

Designing the Garden

Involving the entire garden team in the planning and design of the garden ensures that everyone has a voice in the process and will lead to a design that reflects the collective ideas of the group. Typically, you will need to hold several meetings to give all garden participants the opportunity to contribute. It is also wise to invite the property owner and neighbors: including others throughout the process helps reduce any future animosity.

Working with a design professional is an option that can greatly simplify the planning of the garden; a designer will be able to create a garden that is well-organized, easily maintained and affordable to construct. If you need to apply for a permit for the garden, the designer will be able to assist with that as well.



COMMUNITY GARDEN PLAN BY THOMAS FISCHER & ASHLEY BRENDAN

Another option is to seek input from other community gardeners: not only will you develop new relationships but you can discover what lessons they learned when designing and building their garden.

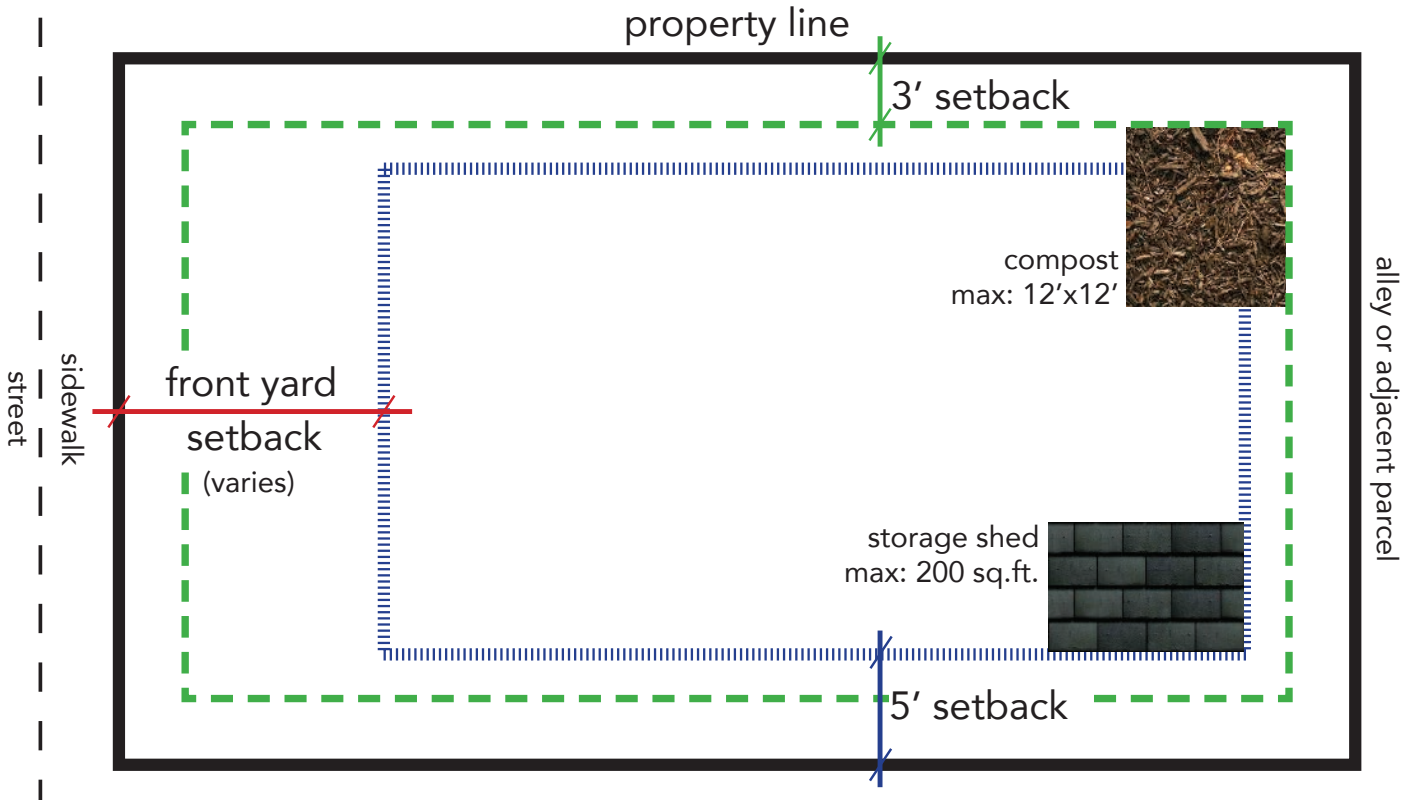
Before beginning to design, two or three members of the garden team will need to measure the site and draw a to-scale site plan that includes any existing features such as trees or driveways. On this plan, mark the location of the setbacks. Obtain this information from the city planning department.

Using copies of the to-scale site plan, ask garden team members and other participants to make simple sketches showing possible locations for the various components of the garden. Discuss what essential features should be included in the garden and begin laying them out on the site plan.

Important elements to consider when designing the garden include the following:

Number of garden plots, type and size. Typically, traditional community gardens will have fifteen or more individual assigned plots that range in size from 100 to 400 square feet. **Communal plots.** Often community gardens will have communal plots to grow food for donation or other uses such as growing perennials, flowers or herbs. **Raised beds.** While raised beds are more costly to install than in-ground garden plots, they are necessary for gardeners with mobility limitations and for sites with contaminated or very poor soil. Raised beds should be 28-30 inches high and 48 inches wide for double-sided or 24 inches wide for single-sided.

Site Plan: Community Garden Setbacks



CITY OF PHOENIX COMMUNITY GARDEN POLICY GUIDELINES, WWW.PHOENIX.GOV/PDD/PZ

ABOVE AND BELOW: THE HARMON LIBRARY COMMUNITY GARDEN FENCE, BY MS. PHOENIX (FLICKR: CREATIVE COMMONS)

Fencing the property. The City of Phoenix does not require a fence for community gardens, however, installing one may help with theft and vandalism. If your garden will be fenced, determine where to place gates including a service gate for vehicular access. Fence height permitted vary by city as well as by location on the site: front yard fences usually must be several feet shorter than backyard fences. In Phoenix, fences within the front yard setback are limited to 40" and backyard fences to six feet. In Phoenix, fences within the front yard setback are limited to 40" (36" in historic districts) and backyard fences to six feet unless a use permit is obtained. If your garden is in the City of Phoenix, you will need to obtain a building permit for all fences higher than 36".

Fencing materials. The City of Phoenix also restricts the type of fencing material used to block, wrought iron, wood, chain link or metal mesh. However, installing chain link fencing along a public street or such that it is visible from the street is not permitted unless a green screen is used. No vinyl or plastic slats are allowed. As an alternative to fencing, you might consider planting a hedge along the garden's perimeter. It is always a good idea to have visibility into the garden from the street – this will help with safety and vandalism.

WHEELCHAIR ACCESSIBLE GARDEN PATHS WITH RAISED AND IN-GROUND PLANTING BEDS, GARDEN OF TOMORROW, PHOENIX, AZ, PHOTO BY AMANDA CLAYTON

Irrigation system. A reliable water source is critical. If the garden sits on the grounds of an organization or public space such as a housing complex, library, park or school, connecting to the existing water line may be possible. If not, a new water tap will need to be installed. Provide one water spigot for every four plots to avoid hoses being dragged over adjacent plots. Installing a drip irrigation system makes sense in the garden's communal areas and around trees. Consider hiring an irrigation specialist if no one has experience designing and installing irrigation systems. Local gardening stores and nurseries should be able to connect with a consultant.

Common areas. Designate space(s) for community gatherings or events. These common areas could include features such as picnic tables, benches, a water fountain, a community bulletin board, a children's garden or youth area, trees and/or a ramada for shade.

Paths. Functional circulation makes working in the garden much easier. For ADA (Americans with Disabilities) accessibility, paths should be 4 to 5 feet wide and constructed out of a compacted surface material such as stabilized decomposed granite or stabilized engineered wood fiber. If you have gardeners or other participants who are wheelchair or scooter riders, use walkers or are a bit unsteady, using appropriate path materials is a must.

Vehicular access. To transport garden supplies and equipment, create road access to the storage/toolshed area for a truck or car.

COOKOUT AFTER COMMUNITY WORK DAY. GARDEN OF TOMORROW, PHOENIX, AZ

Composting area. Most community gardens include a space for composting and most municipalities have rules for composting including site location, maximum size and odor management. For gardens in Phoenix, composting areas may not exceed 12'x12' and must be setback at least 3 feet from the property line.* If a larger composting area is required, it will be necessary to obtain a use permit through the City of Phoenix Department of Planning and Development.

* CITY OF PHOENIX COMMUNITY GARDEN POLICY GUIDELINES, WWW.PHOENIX.GOV/PDD/PZ

Toolsheds and storage areas. Having a place onsite to store garden tools and supplies is a good idea. Whether you buy a prefabricated shed or build one onsite, making it as vandal-proof as possible is important. Toolsheds and other structures are subject to size restrictions and must be located within the site's buildable area: check with your planning department for details. If your garden will have machinery such as a lawnmower or a tractor, it will need to be screened from view – either inside the garden shed or behind a large hedge. All materials such as fuel, fertilizer, pesticides and herbicides must be stored according to label instructions in their original, clearly labeled containers with childproof caps and inside a locked shed. Material Safety Data Sheets for each product should be easily accessible. To ensure that these materials are properly stored and are not at risk of combustion, it is necessary to consult your local fire department.

Lighting. If there is no existing lighting on the site, installing lighting for security or evening events may be desired. Solar powered lights are an option if there is no power access on site. If lights need to be connected to an electrical circuit or junction box, you might need a building safety or electrical permit. Cities will have different lighting regulations so be sure to check local rules. The City of Phoenix requires that all lighting be shielded so it does not spill onto adjacent properties, streets or allies and if motion activated lighting is used, it cannot be installed higher than 12' off the ground.

Signage. Community gardens within Phoenix may have one non-illuminated sign (two, if the garden is located on a corner lot) posted within the property boundary. Signs may be no larger than 6 square feet and the top of each sign may reach a maximum of 6 feet. At a minimum, the sign must include the garden's name and contact information (phone number and email address). If relevant, it may be desirable to include the names of any sponsors. In bilingual communities, include information in appropriate languages.

Security. While there are strategies for discouraging theft and vandalism, eliminating it completely is difficult. Fences and lighting help keep unwanted activity out so do considering installing both. If the garden experiences a significant amount of vandalism it might be worthwhile to install a security alarm. For gardens in Phoenix, installing an alarm will require an alarm permit and possibly a building safety/electrical permit as well. Additionally, the City of Phoenix only allows silent alarms. If theft within the garden becomes a problem solutions include the strategic use of spiky plants, growing unfamiliar or unusual crops or opting for less visibly enticing root crops.

Art in the garden. Incorporating art in the garden creates an identity and is fun for garden participants. Art elements may include murals, fun birdhouses, sculpture, metalwork and so on.

TOP: SIGN FOR MESA URBAN GARDEN (MUG) PHOTO BY DAVID CRUMMEY (FLICKR: CC). BOTTOM: COMMUNITY GARDEN ART MURAL, DRAWING BY IDALY CORELLA

BROPHY PREP GARDEN, PHOENIX, AZ

Developing a Budget

List all of the materials you will need for the garden putting essential items such as paths, plots, irrigation and toolshed at the top. If the garden will have a fence, include this with the essential items. The following list includes additional elements you may want to consider.

- Soil and soil amendments
- Raised bed frames
- Path materials
- Tools
- Compost bins
- Mulch for vegetables
- Seeds
- Plants for common areas
- Lights
- Furniture: picnic table, chairs, table
- Shade structure
- Contractors' fees

To keep the finances straight, set up a bank account for the garden.

Preparing the Site

It is important to ensure that the soil of your community garden is safe. To protect against the presence of urban contaminants and ensure that your soil will provide the best growth media for your garden, always take the following steps before planting any crops:

1. **Survey the property and identify potential risks and contaminants for testing.**

The types of contaminants you are likely to find depend on the history and use of the property. Soil near bus routes, busy roads or highways can have elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) and lead. Soil near older homes (built before 1978) can also contain lead-based paint. As a general rule, environmental professionals look at the property history and previous uses to identify what environmental contaminants may be present for testing. They also look at nearby properties to see if their use may have created hazards that could affect neighboring areas.

POSSIBLE CONTAMINANTS OF CONCERN IN URBAN SOIL

- Petroleum and waste oils
- Lead and other metals
- Volatile Organic Compounds (VOCs)
- Pesticides
- Polycyclic aromatic hydrocarbons (PAHs)

You can do a similar search in your community. A librarian at your local public library may be able to help you locate historical property records, Sanborn or fire insurance maps and city directories that identify previous property uses or you may be able to find information on the internet. Sometimes looking at a property can provide visual cues to potential contamination. Soil staining, an oily sheen on puddles, visible tanks or piping, or piles of debris may suggest petroleum tanks or illegal dumping. If you suspect environmental contaminants, you may wish to select a different site for your garden.

2. **Test your soil. Consider likely environmental contaminants, pH, organic content, and soil nutrients needed for healthy plant growth.**

Before establishing a community garden in an urban area you should send samples to a soil extension service lab. The University of Arizona's Cooperative Extension has compiled a list of local labs that conduct soil testing (http://extension.arizona.edu/maricopa). These labs will generally test for pH, organic content and nitrogen (N), phosphorus (P), and potassium (K) and some also commonly test for lead. Some labs may do additional tests, such as a metal panel, but you will need to request them specifically and pay for specific additional tests. Check with your extension service to see what soil tests they provide or recommend. Individual state land grant universities and extension offices may have specific suggestions for sampling requirements, testing request forms and packaging recommendations for mailing soil samples so check with them first. The US Department of Agriculture website provides a map and links with the university and extension offices in your area.

3. **Clean contaminants and add soil amendments to create a safe growing environment.**

If you have contaminants at a level that needs cleanup, contact the Arizona Department of Environmental Quality (ADEQ) Brownfields Program (http://www.azdeq.gov/environ/waste/cleanup/brownfields.html), the City of Phoenix Brownfields Land Recycling Program (https://www.phoenix.gov/oep/environment/land/brownfields), or the Brownfields Coordinator of your city or town or local non-profit organization to see if they have cleanup funds. The ADEQ Brownfields Program can help and oversee the cleanup if the property is enrolled in the ADEQ voluntary cleanup program. You will need to explain your interest in turning the site into a garden and they will provide guidance on what levels of cleanup need to be met to ensure safe gardening. They may also recommend above-ground (raised beds) rather than in-ground gardening to reduce exposure to unsafe soils.

In some instances, the ADEQ or your city may recommend using a water permeable fabric cover or geotextile to reduce exposures to soils of concern. They may suggest you purchase and add topsoil or clean fill from 'certified soil sources' to ensure the soil is safe for handling by children or gardeners of all ages and for food production. One important point to remember – in the building and construction trades, the term 'clean fill' is used to mean materials screened to remove chunks of concrete or asphalt, *it does not mean the soil is safe and healthy for gardening*. If you need soil material to add in gardening areas, look for certified soils. Your environmental program will be able to direct you to providers of safe certified soils.

Alternatively, you may have such limited contamination that no cleanup is necessary. In those instances, adding safe compost, certified soils or soil amendments which you may have already planned to do before planting, can improve the soil quality and can help to further bind the contaminants.

Before doing anything, check utility locations! Call 811 or visit http://www.call811.com/ to connect to a local operator to schedule a utility locate appointment.

If there will be garden elements that require permits, apply for those now.

Some sites will require grading. The City of Phoenix requires that any site grading must keep all water (irrigation, storm water, etc) from draining onto adjacent property or into street and prevent onsite ponding that will allow mosquitos to breed.

HEALTHY SOIL, PHOTO BY LYNDA RICHARDSON, USDA NATURAL RESOURCES CONSERVATION SERVICE

SuSTaINING THe GARDeN

Management

Developing guidelines or bylaws for the community garden establishes garden governing structure and process, rules, code of conduct and maintenance requirements for all garden participants and helps alleviate future problems. The Public Health Law Center (www.publichealthlawcenter.org) recommends including the following elements in the guidelines:

- Plot assignment and renewal guidelines
- Hours of operation
- Music or noise guidelines
- Membership fees and collection guidelines
- What chemicals (pesticides, fertilizers) are permitted
- Code of conduct (acceptable behavior in the garden)
- Rule enforcement and conflict resolution guidelines
- Maintenance requirements and responsibilities
- Access to equipment and water guidelines
- Composting guidelines
- Rules regarding pets in the garden

In addition to these elements, the guidelines or bylaws should also articulate the following:

- When and how often meetings will be held
- How garden officers and/or garden committee members are chosen, length of term, duties and how vacancies will be filled
- Process for amending guidelines or bylaws
- Health and safety guidelines

Communication

Create a communication strategy that allows garden information to be communicated to garden members and participants as well as the larger community. There are several methods that would work such as a monthly newsletter and/or a website. If you create a website, include information on how to get involved in the garden and an application form, what events are coming up such as work days or potlucks, and photos of the garden or a map. Linking your garden's website to websites of existing community gardens or other local gardening sites can increase visibility.

PHX RENEWS,
COMMUNITY GARDENS,
PHOENIX, AZ

Fundraising

For the garden to be sustainable from year to year, establishing a viable plan for fundraising is essential. While some monies will be collected through garden membership fees, it is likely your annual operating budget will exceed that amount. For funding, consider a range of sources such as grants, donations, in-kind donations, sales, fundraising events and partnerships. Before applying for grants or approaching potential donors, write out the garden's mission statement, goals and objectives and create a business plan. People and organizations generally prefer to give money to groups that know what they want to do and are able to articulate their goals.

Advocates for Health in Action (http://www.advocatesforhealthinaction.org) suggests developing a specific wish list for the garden and having a menu of fundraising and donation options along with a clearly defined strategy to employ when seeking funds for items on the list:

- Create a list of potential donors and then determine what will be requested and who will do the requesting. Also decide how the donors will be recognized.
- Develop an in-kind donations plan that includes spreading the word about your garden and the work you are doing. Create a brief overview of the garden that you can give to local businesses and organizations and create an in-kind donation request form you can leave with them.
- Develop partnerships with local service organizations, businesses and community colleges. Get them engaged in an "Adopt a Garden" or "Adopt a Plot" program.

Seek out grants for each stage of the community garden. Some organizations provide start-up funds to new gardens while others prefer funding projects for established gardens. The following organizations list information and sources on grants for community gardens:

- **American Community Gardening Association**
  https://communitygarden.org

PHOTO BY BOB NICHOLS, USDA NRCS

- **Captain Planet Foundation**
  http://captainplanetfoundation.org/
- **Environmental Grantmakers Association**
  http://ega.org/
- **Seeds of Change**
  http://www.seedsofchangefoods.com/default.aspx
- **America in Bloom**
  http://www.americainbloom.org/resources/Grant-Opportunities.aspx
- **National Recreation and Park Association**
  http://www.nrpa.org/garden/
- **Community Food Projects Program**
  http://www.nifa.usda.gov/fo/communityfoodprojects.cfm
- **USDA Specialty Crop Block Grant Program**
  Local contact: Lisa James at https://agriculture.az.gov/
- **Fiskars Project Orange Thumb**
  http://www2.fiskars.com/Community/Project-Orange-Thumb

CoMMUNITY GARDeN RESoURCES

Local Resources

Valley Permaculture Alliance
http://www.phoenixpermaculture.org/

Sonoran Permaculture Guild
http://www.sonoranpermaculture.org/

Desert Botanical Gardens
http://www.dbg.org/gardening-horticulture/gardening-resources

Tiger Mountain Foundation
http://www.tigermountainfoundation.org/

Maricopa County Cooperative Extension Horticulture
http://cals.arizona.edu/maricopa/garden/html/general/hort.htm

10 Steps to a Successful Vegetable Garden (AZ1435)
http://cals.arizona.edu/pubs/garden/az1435.pdf

City of Phoenix Community Gardens Policy
www.phoenix.gov/pdd/pz

Environmental Protection Agency (EPA) Steps to Create a Community Garden or Expand Urban Agriculture
http://www.epa.gov/brownfields/urbanag/steps.htm

National Resources

American Community Gardening Association
https://communitygarden.org

The National Gardening Association
http://www.garden.org

Let's Move
http://www.letsmove.gov/

USDA The People's Garden, Gardening Resources
http://www.usda.gov/wps/portal/usda/usdahome?navid=GARDEN_RT3&parentnav=PEOPLES_GARDEN&navtype=RT

Environmental Protection Agency (EPA) Guide to Creating a Community Garden
http://www.epa.gov/brownfields/urbanag/steps.htm

Gardening Matters
http://www.gardeningmatters.org/

Denver Urban Gardens (DUG)
http://dug.org/

Locate a Local Food Pantry
www.ampleharvest.org

Community Gardening Guides

The following guides contain valuable information for starting and maintaining a community garden. Several include sample documents such as membership agreements.

Community Garden Handbook
https://www.dmgov.org/Departments/Parks/Pages/FlowersCommGardening.aspx

Community Garden Policy Reference Guide
http://publichealthlawcenter.org/topics/healthy-eating/gardens

From Neglected Parcels to Community Gardens: A Handbook
http://wasatchgardens.org/resource/starting-community-garden

Growing Community Gardens: A Denver Urban Gardens' Best Practices Handbook for Creating and Sustaining Community Gardens
http://dug.org/best-practices/

Starting a Community Garden Toolkit
http://www.douglascounty-ne.gov/gardens/start-a-community-garden

Reference List

Bliss, K., (n.d.) Fundraising and Financially Sustaining a Community Garden. Retrieved from http://www.advocatesforhealthinaction.org/eat-healthy/community-gardens/resources/

Bauermeister, M., Savio, Y., Surls, R., & Swain, S. (2013). Community Gardens. University of California Agriculture and Natural Resources, ANR Publication 8499. Retrieved from http://anrcatalog.ucanr.edu

City of Des Moines Parks and Recreation. (n.d.). Community Garden Handbook. Retrieved from https://www.dmgov.org/Departments/Parks/Pages/FlowersCommGardening.aspx

City of Phoenix Planning & Development Department. (2013). Community Garden Policy Guidelines. Retrieved from http://www.phoenix.gov/pdd/pz/

City of Santa Cruz. (n.d.). Trail Materials Analysis and Comparison Matrix. Retrieved from http://www.cityofsantacruz.com/gcsearch.aspx?q=trail+materials+analysis

Douglas County Health Department. (2010). Starting a community garden toolkit. Retrieved from http://www.douglascounty-ne.gov/gardens/start-a-community-garden

Denver Urban Gardens. (2012). Growing Community Gardens. Retrieved from http://dug.org/best-practices/

Designing Healthy Communities. (2011). The Role of Community Gardens in Sustaining Healthy Communities. Retrieved from http://designinghealthycommunities.org/role-community-gardens/

Emerson, B., Ogilvie, G., Bell, C., Anderson, D., Chiao, A., & Ferris, R. (n.d.). From Neglected Parcels to Community Gardens: A Handbook. Retrieved from http://wasatchgardens.org/resource/starting-community-garden

Gardening Matters. (2012). Multiple Benefits of Community Gardens. Retrieved from http://www.gardeningmatters.org

Goosman, G., & Bess, K. (2004). Money for Community Gardens. Retrieved from http://nccommunitygardens.ces.ncsu.edu/nccommunitygardens-funding/

Grow. (2011). Benefits of being involved in a Grow Community Garden. Retrieved from http://www.grow-ni.org/get-involved/benefits/

Kansas State University Agricultural Experiment Station and Cooperative Extension Service. (2013). Gardening on Brownfields: Testing Your Soils for Nutrients, pH, and Organic Matter. MF3095. Retrieved from http://www.gardeningonbrownfields.org

Kansas State University Agricultural Experiment Station and Cooperative Extension Service. (2014). Gardening on Lead-Contaminated Soil. MF3166. Retrieved from http://www.ksre.ksu.edu

Laufenberg, T. (2004). Stabilized Engineered Wood Fiber for Accessible Trails. US Department of Agriculture, Forest Service, FPL-GTR-155. Retrieved from http://www.access-board.gov/research/completed-research/stabilized-engineered-wood-fiber-for-accessible-trails

Public Health Law Center. (2012). Community Garden Policy Reference Guide. Retrieved from http://publichealthlawcenter.org/topics/healthy-eating/gardens

US Environmental Protection Agency. (2011). Reusing Potentially Contaminated Landscapes: Growing Gardens in Urban Soils. EPA 542-F-1-011. Retrieved from http://www.clu-in.org/s.focus/c/pub/i/1843/

TOP: PHOTO BY JOE LARSON, USDA NRCS.
BOTTOM: COMMUNITY GARDEN PLAN BY JOE LENZ

LEFT: PHOTO BY KAREN LAWSON, USDA

WORK BOOK

OTHER WORKBOOK TOPICS

NO CHILD LEFT INSIDE
Community-based strategies for increasing physical activity among children, youth, adults and families

CREATING RESILIENT NEIGHBORHOODS
A how-to resource guide for cultivating resiliency in local neighborhoods

URBAN FARMS
An overview of best practices and how to integrate them into our communities

the elemental group
advancing the health and livability of our communities

St. Luke's Health Initiatives
A Catalyst for Community Health