

CITY OF KEENE, NH COMMUNITY GARDENS NEEDS ASSESSMENT



June 2014

Prepared for the Keene Agriculture Commission by
the Antioch University New England *Community and
School-Based Food Systems* course participants

Emily Cherkin, Josh Cook, Peter Jenkins,
Rebakka Milles, Sara Powell, Liz Strassman

(Dr. Elizabeth McCann, Faculty Advisor)



Executive Summary

This report was prepared for the City of Keene Agriculture Commission (KAC) by Antioch University New England (AUNE) *Community and School-Based Food Systems* course participants in spring 2014. The aim of this project and final report is to provide the KAC and City of Keene, NH with information and resources on community gardens. This report can be used by city officials, community gardeners, organizations and other citizens to inform long-term community garden efforts in Keene. The KAC and Keene Planning Board may also find this report useful if investigating ways to enhance community gardening, and other community agricultural efforts, in the region. This class project and final report explore aspects of community gardens and deliverables related to:

- Benefits of community gardens
- How community gardens complement the City of Keene's goals for the future
- Relevant best practices grounded in the literature on community gardening
- Descriptions of existing community gardens in Keene
- Geographic information system (GIS) map with locations of existing gardens and recommended areas to consider if the City is interested in developing new community garden sites
- Interviews with ten individuals with connections to the Monadnock View Community Garden. We provide insights gleaned from these interviews, as well as suggestions for collecting additional community member input
- Recommendations for continued management and improvement of Keene-based community gardening efforts

Prominent findings of this report include:

- Community gardens complement the City of Keene's Comprehensive Master Plan and other regional initiatives committed to community health, sustainability and citizen engagement.
- As of May 2014, there were 13 community garden sites of varying sizes in Keene that were a mixture of publicly accessible, nonprofit and workplace gardens. Collectively, these sites reflect a conservative estimate of over 180 raised beds and garden plots.
- These community garden plots are a mix of sites managed by the City's Parks & Recreation Department, and sites developed through other complementary initiatives (e.g., AUNE's Community Garden Connections (CGC), C&S Workplace Organic Gardens). These non-City property sites include 57 CGC raised beds at 9 organizational sites (with 11 partner agencies), plus a conservative estimate of over 100 employee garden beds provided though C&S Wholesale Grocers in partnership with AUNE.
- Of the garden beds open to the public via the City of Keene, roughly half were leased for the season as of April 2014.
- Successful community gardens typically: have easy access to water, identify a dedicated garden champion or organizer; offer educational opportunities; and are accessible to the entire community. We offer recommendations that reflect such best practices to ensure long-term success of community gardening in Keene, NH.

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Introduction

What are Community Gardens?

A community garden can mean many things to different people. For some, it is a place to grow food or flowers in the company of friends and community members. For others, such gardens might be a place to connect with nature, get some exercise, or socialize. Some people take part in community gardening because they do not have any other space to garden. For the purposes of this needs assessment and report, we used the broad definition of “community garden” to mean “...any piece of land gardened by a group of people, utilizing either individual or shared plots on private or public land. The land may produce fruit, vegetables, and/or ornamentals. Community gardens may be found in neighborhoods, schools, connected to institutions such as hospitals, and on residential housing grounds.”¹ This broad definition is akin to the American Community Gardening Association’s definition of “land set aside for community members to grow edible or ornamental plants. The land may also include active or passive recreation space or other amenities.”² Regardless of why or where people choose to participate in community gardens, the act of gardening is rewarding and challenging. We hope that this report provides useful tools and suggestions to make community gardening in Keene, NH rewarding and successful for years to come.

Types of Community Gardens

As previously suggested, community gardens can be found in multiple forms including: neighborhood gardens, school or youth gardens, workforce training gardens, therapy gardens, senior gardens, church gardens, demonstration gardens, communal gardens, or food pantry gardens. Community gardens can also be found at apartment buildings or in public housing areas, prisons, public agencies, or community centers. Such community gardens exist in a variety of other forms and serve different functions.³ How the community gardens are organized and managed is up to the members and organizers of a given garden.

¹ Bauermeister, Swain, & Rilla. (2010). *Marin County Community Garden Need Assessment*. University of California Cooperative Extension-Marine, p. 6.

² Lawson & Drake (2013). *Community Gardening Organizational Survey, 2011-2012*. *Community Greening Review*. Volume 18. American Community Gardening Association, Columbus, OH. p. 21.

³ Lee, V. (n.d.). *Community Gardens: A Typology*. Retrieved from: http://depts.washington.edu/open2100/pdf/2_OpenSpaceTypes/Open_Space_Types/cgarden_typology.pdf

As described by the American Community Gardening Association

(<https://communitygarden.org/resources/>), these sites vary in scope, location, purpose and what they grow. For example a community garden can:

- Be located just about anywhere (urban, rural, suburban)
- Grow a variety of vegetation (vegetables, flowers, herbs, native plants, etc.)
- Be individual or communal/shared plots
- Be owned and operated by all types of organizations such as municipalities, schools, universities, neighborhoods, churches and hospitals, to name a few.

Gardens of any type also entail potential challenges, which are discussed in the following section.

Challenges

Like nearly any community initiative, there are potential challenges to consider when starting or maintaining a community garden site. Lawson and Drake's (2013) survey of North American community gardens identified acquiring gardening equipment; sustaining people's involvement; gardener training and education; organizational collaboration; and securing long-term funding as the most frequently identified challenges among respondents.⁴ These and other commonly identified challenges discussed in the literature include:^{5,6}

- Access to Water- Some sites may not have access to a source for water, and if they do, the access may be limited. Easy access to water is critical for maintaining the viability of community gardens.
- Services and Supplies- There may be plowing, tilling, or delivering compost that could be a challenge for members to arrange themselves.
- Maintenance- Mowing and cleaning up plant debris will need to be done; avoiding vandalism
- Participation/long term involvement- People come and go from communities for many different reasons. Participants need to be kept engaged.
- Gardening skill development and education- New gardeners need education and support to best ensure they have positive gardening experiences; otherwise they may not participate again.

⁴ Lawson & Drake (2013). *Community Gardening Organizational Survey, 2011-2012. Community Greening Review*. Volume 18. Columbus, OH: American Community Gardening Association.

⁵ See: <http://extension.missouri.edu/explorepdf/miscpubs/mp0906.pdf>

⁶ See: http://extension.unh.edu/resources/files/Resource002173_Rep3203.pdf

- Leadership and Management- Community gardens need someone to take on responsibilities of managing the system of rules, working on projects, and helping organize people.

Ideas for addressing these common challenges are outlined in our Best Practices and Future Recommendations sections of this report. The following Rationale section outlines potential benefits of community gardening prior to discussing avenues to minimize challenges. Leveraging such benefits can go a long way toward mitigating challenges that arise in the design, implementation and long-term sustainability of community gardens.

Rationale

Benefits of Community Gardening

Community gardening provides multiple benefits, not just the benefit of growing food. An important benefit of participating in a community garden is that it increases community involvement through fostering a sense of place. This sense of place can occur through the act of gardening or through the connections participants make with their neighbors and community members. In the process, participants are likely to feel a sense of ownership and stewardship. Community gardens also help encourage healthy eating, more physical activity, and increased self-esteem. Gardening is a way to reduce stress and many organizations use gardening as therapy.^{7,8}

Food Security

Community gardening can improve food security for their members. People without the means to purchase fresh, local, or organic produce may still be able to grow fresh vegetables for themselves. The produce that community gardeners grow can significantly lower their food cost through the harvest season.

Definition

“Food security exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food which meets their dietary needs and food preferences for an active and healthy life.”

– *World Health Organization (WHO)*

⁷ American Horticultural Therapy Association: <http://ahta.org/about>

⁸ For detailed discussions, see: Marcus, C.C. & N.A. Sach's (2013) *Therapeutic landscapes: An evidence-based approach to designing healing gardens and restorative outdoor spaces*. NJ: Wiley & Sons.

The World Health Organization (WHO) further defines food security in relation to the following:⁹

- Food availability: sufficient quantities of food available on a consistent basis.
- Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
- Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Food Security Statistics for the Monadnock Region¹⁰

- 6,352 people qualify for food & nutrition programs in the region.
- 4,235 food insecure people living in the region do not qualify for food assistance because their incomes rank as ‘too high.’
- 10,587 (9.9%) of residents in the Monadnock region are food insecure.
- 7,800 (33%) children attending Monadnock region schools receive free and reduced lunch.
- 11% of people in the region access food from the Keene Community Kitchen.

Why Community Gardens in Keene?

This needs assessment suggests there is great potential for enhancing and inspiring expansion of community gardens in Keene. Much of the land that is still open in and around Keene is considered prime agricultural land. Since the first CGC and C&S Workplace Organic Gardens were established in 2011, their popularity has grown steadily with new gardens added every year.¹¹ There is also substantial interest in local

agriculture and nutrition among students and faculty of Antioch University New England and Keene State College. The Keene Comprehensive Master Plan¹²

“We should continue to support household and community gardens”
– *City of Keene Master Plan*

also includes language that supports continued investment in community gardens. What follows are examples drawn from the City of Keene Comprehensive Master Plan and related documents, which highlight ways that community gardens connect with Keene’s current and future goals:

⁹ See: <http://www.who.int/trade/glossary/story028/en/>

¹⁰ See: <http://www.mfccoalition.org/quarterly-meetings/november-17-2013-a-place-at-the-table-at-the-colonial/>

¹¹ Libby McCann, PhD (Faculty Advisor to AUNE Community Garden Connections and C&S Workplace Organic Gardens), in discussion with student authors, April 2014.

¹²The City of Keene Planning Department. 2010. *Keene Comprehensive Master Plan*. September. Accessed March 2014. Retrieved from: http://www.ci.keene.nh.us/sites/default/files/CMPprint-final-1027-fullversion_0.pdf.

Reducing Keene’s greenhouse gas (GHG) emissions & address climate change impacts (*see page 65*). Keene signed onto the Cities for Climate Protection Campaign and developed a local climate action plan outlining ways to lower emissions of GHGs. In signing onto this campaign, Keene pledges to reduce emissions to 10% below 1995 levels by 2015. As background, the City of Keene conducted a report in 2007 about the predicted effects of climate change in the Monadnock region titled *Adapting to Climate Change: Planning a Climate Resilient Community*. The study identified food security as a major issue to impact the region as seasonal weather patterns change, increasing the chance of both drought and flooding, which affect all aspects of our food system. Included within the City’s goals are to: “*Develop a food security plan for Keene by 2010.*” and “*Double size and number of community gardens by 2027.*”¹³

Increased gardening and local food production are important ways to reduce GHG emissions and mitigate local impacts of climate change. By producing more food in the community, Keene residents reduce GHG emissions by eliminating some transportation fuel costs. Gardens can also provide more green space in cities and this in turn reduces the heat-island effect of buildings and pavement. Lastly, climate change is predicted to alter precipitation patterns around the world and food prices will rise as water scarcity increases in major crop producing regions.¹⁴ By growing more food locally Keene residents can keep their food costs lower.

Improving stormwater infrastructure (*see pp. 87-90*). Much of Keene is situated in the Ashuelot River floodplain and managing stormwater runoff is a major concern for the city. As development increases and city infrastructure ages, storm water runoff is likely to become an increasingly large issue. The master plan recommends that infrastructure improvements are made to handle

“We should continue to support household and community gardens as well as sustainable food production methods and educational opportunities, linking local food with health, economic development, and land use and climate-change goals.”
– *City of Keene Master Plan* (p. 101)

larger stormwater surges in the future. One strategy for managing runoff is to create stormwater systems that work with nature. Installing gardens and green spaces are great ways to reduce runoff from impervious surfaces. Community gardens can help absorb excess rain water and rain barrel systems can be designed to both capture runoff and provide gardeners with water.

¹³ *Adapting to Climate Change: Planning a Climate Resilient Community*, November 2007, prepared by City of Keene in assoc.with ICLEI, p. 60.

¹⁴ IPCC 2007: Working Group II. Retrieved from: http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch5.html

Supporting a Healthy Community and Citizenry (e.g., see p 101). In multiple places, the master plan addresses the Keene's identified goal of being the healthiest community in the United States by 2020. This initiative includes promoting active well-being, and ensuring there is access to locally and sustainably produced, high quality, and affordable food. Community gardens facilitate achievement of these goals. Gardening provides a way for people to be physically active, while promoting the consumption of fruits and vegetables. Expanding community gardens is critical to achieving the goal of Keene being the healthiest city by 2020.¹⁵

Expanding adult education opportunities (see p. 110). Keene wants to ensure the continued availability of a wide range of formal and informal, community based adult education programs and resources. Community gardening could be a way to increase formal and informal community based education.

Increase food security and fresh produce available at food pantries (see p. 114). Keene's master plan recommends finding more ways to connect individuals and families with food assistance. It also encourages finding more opportunities to make fresh, nutritious produce available at food pantries. Community gardens can be a way to help individuals and families increase food security. Gardeners can also donate some of the produce they grow to food pantries. Some of the existing community gardens in Keene already facilitate such donations; the CGC Westmoreland Garden donates all produce to the Keene Community Kitchen and the C&S Organic Workplace Gardens accomplish this goal by growing a community giving plot. Combined, these two initiatives conservatively donated two thousand pounds in the previous 2013 growing season.¹⁶

Improving City Spaces (see pp. 116-123). Keene is committed to use all spaces within the city to their greatest potential. Under-utilized spaces can be improved in a variety of ways to increase community well-being, satisfaction, and prosperity. Community gardens offer opportunities to enrich vacant lots, reduce crime, expand economic development, and build social capital, among other potential city improvements.^{17,18,19,20} Community gardens may be an ideal way to maximize the potential of under-utilized spaces in Keene.

¹⁵ See also: <http://www.healthymonadnock.org/>

¹⁶ Multiple sources: *Community Garden Connections Annual Report*; *C&S Workplace Organic Gardens Annual Report*

¹⁷ Francis, M. (2003). *Urban Open Space*. Washington: Island Press.

Given the City of Keene’s priorities and long-term interests, supporting and expanding community garden opportunities is value-added. The following section outlines best practices to consider when undertaking such collective gardening efforts.

Community Garden Best Practices

The success of community gardens depends on community involvement and access to relevant resources. The following best practices are a compilation of suggestions identified from relevant literature about community gardens. These are general recommendations – there is no “one” ideal prescription for where a community garden should be, how it should operate, or what it should look like. Community gardens are not just places to grow food; they can also be for growing flowers and ornamentals. Community gardens are places to connect with friends, neighbors, and nature.²¹ Successful community gardens are found in a wide range of communities: rural, urban, suburban, low income, affluent, etc. They can range from a single shared flower bed to several acres of individual garden plots. Overall, the success of a community garden depends on its community. We hope the following best practices will serve as a useful guide for maintaining existing community gardens or starting new ones:

Leadership

Successful community gardens have one or more leaders of garden champions. A community garden leader may be an active member of a garden who is comfortable taking on some extra responsibilities or this person may be a paid employee of the town or organization that manages the gardens. Alternatively the garden leader could be a rotating internship position held by a college or graduate student. For more information on what a community garden internship could look like, see **Appendix 1: Sample Internship Description**.

Having a dedicated garden leader or “champion” is often essential to a community garden’s success. This individual would effectively respond to garden members’ needs and interests; offer ongoing support; and oversee regular management and maintenance of the space, tools, etc.

¹⁸ http://www.gardeningmatters.org/sites/default/files/Multiple%20Benefits_2012.pdf

¹⁹ Schukoske, J.E. (2000), *Community development through gardening: State and local policies transforming urban open space*, University Journal of Legislation and Public Policy, vol. 3. Retrieved from: http://adpbotswana.pbworks.com/f/ecm_pro_060628.pdf

²⁰ *Cultivating Community Gardens: The Role of Local Government in Creating Healthy, Livable Neighborhoods*. Retrieved from: <http://nccommunitygarden.ncsu.edu/RoleLocalGov.pdf>

²¹ University of Missouri Extension, Community Gardening Toolkit. www.extension.missouri.edu, 2014.

Forming a garden committee—comprised of site participants and other key stakeholders—can also increase the success and long term sustainability of the garden.²²

Site Resources

Community gardens require more than just a plot of ground to plant seeds. At a bare minimum, community gardeners need access to basic tools and resources that make gardening an enjoyable activity. A garden site should provide the resources and services that individual members would have difficulty providing themselves: water, hoses, rototilling, mowing paths, and deer fencing (if needed). In addition, a site can be enhanced significantly—and thus, gardeners’ experience improved—if resources like compost or manure spreading, tools, tool shed, raised beds, and benches or picnic tables are provided. Steps should be taken to ensure that resources are well cared for over multiple seasons; providing a conveniently located, shared tool shed for communal supplies can serve a key role in that regard. When planning new garden sites or enhancing existing ones, take into account the needs and interests of garden members. There are also a variety of evaluation tools that can help in soliciting feedback from gardeners, such as:

<https://communitygarden.org/resources/sample-evaluation-tools/>

http://www.wholecommunities.org/whole_measures/

For more detailed information on community garden resources and site considerations, see

Appendix 2: Workplace Garden Physical Features.

Education and Workshops

Educational opportunities and workshops help promote the garden site and create a support system for new and returning gardeners. Workshops can also build a sense of community around the garden through shared knowledge and skills. These educational events can be run by garden participants or they can be organized through other community partners. Examples of workshops and community garden events include:

- Harvest Festivals
- Garden Demonstrations
- Garden Tours/Open House

²² For more detailed discussions of community engagement and leadership considerations, see Chapter 2: Community Gardens—An Overview (by Payne & Fryman) in *Community Gardening in New Hampshire: From the Ground Up* (UNH-Extension). Retrieved from: http://extension.unh.edu/resources/files/Resource002173_Rep3203.pdf

- Hosting musical and cultural events (for example, see Nuestras Raices' community farm events held in Holyoke, MA (www.nuestras-raices.org))
- Hosting weekly pizza nights (for example, see The Intervale Center's Pizza Night held in Burlington, VT (www.intervale.org), which is done in partnership with a local restaurant and open to all community members.

Partnerships and Outreach

Building relationships with community organizations is commonly identified as a best practice for community garden success and resilience. Examples include partnerships with: universities, schools, county extension agencies, city/county agencies and nonprofits, religious centers, health centers, and local businesses. Such partnerships can provide important resources for the site (e.g., workshop opportunities, donation, supplies, people power, etc.) and can enrich the community connections and culture of the garden. These partnerships can provide avenues for outreach opportunities as well.

Accessibility

The success of a community garden often depends on its location. Are the people that want to garden close to where the gardens are built? Will they have to drive? Bike? Walk? If these things are not known, a needs assessment of people interested in gardening may be warranted.

Identifying and talking to key stakeholders may help determine the placement of any new gardens that are built. Accessibility is also important among community members who want to garden though may have limited mobility or physical challenges; gardening can be adapted to be more accessible and inclusive of all ages and abilities.²³

Gardener Communication and Networking

Another best practice is to provide a way for gardeners to communicate with each other.

Enhanced communications can help gardeners organize events, learn about workshops, and share information. Developing a system, such as an onsite message board, email list, or newsletter, can greatly enrich the community and culture of the garden. A garden committee or garden champion may be best suited to develop and oversee such an outlet for the site participants to communicate with each other. See **Appendix 2: Workplace Garden Physical Features - Communication/Education** for more information.

²³ For accessible gardening ideas and further reading, see: <http://www.infinitec.org/play/gardening/gardeningresources.htm>

Rules and Procedures

Community garden managers will also need to provide gardeners with clear information and guidelines for leasing a gardening plot. If a community garden is run by an organization for its members, a set of written procedures and expectation may still be helpful. Developing these resources and guidelines will be the responsibility of the garden site manager, intern, champion, or committee. Some helpful resources to provide for gardener include:

- Garden welcome packet and orientation
- Participant guidelines decided on by the garden committee
- Garden Plot Lease
- Maintenance/Activities schedule

See **Appendix 3: Sample Community Garden Contract** and **Appendix 4: Garden Plot Lease Form** for more information.

Summary

The long-term success of a community garden depends on the people involved and the support, resources, and connections with the broader community. Building a garden culture that is unique to the place and individuals involved is essential. Community aspects, sharing knowledge, skills, and tools, learning new skills, sharing recipes, working together, etc. can all contribute to the culture and sustainability of the garden over time. A community garden filled with identity and pride is truly successful.^{24,25}

²⁴ Bauermeister, Swain, & Rilla. (2010) Marin County Community Garden Need Assessment. University of California Cooperative Extension-Marin.

²⁵ University of Missouri Extension, Community Gardening Toolkit. www.extension.missouri.edu, 2014.

Existing Community Gardens in Keene

As of May 2014, Keene has 13 existing community gardens of various sizes and purposes.²⁶

Only one of these, the Monadnock View Community Garden, is a public community garden with plots available for lease. The rest are gardens are located on private land. We still consider these community garden sites because they are gardened by groups of people rather than solely individuals or single families. Most of the raised bed gardens are located at social service agencies and managed in a partnership with AUNE’s Community Garden Connections (CGC). C&S Wholesale Grocers also has gardens for their employees at both of their Keene locations.

Monadnock View Community Garden

Location: Off Park Ave. behind the Parks & Recreation maintenance building at the Monadnock View Cemetery



City of Keene Parks & Recreation tills three large strips of a field behind the Monadnock View Cemetery for the community garden. For the 2014 growing season, these tilled areas are divided into

88 plots, roughly 19 X 25 feet/plot. Residents can lease a plot for the season for \$20. Gardeners are allowed to drive on the field up to their plot to unload tools, plants, etc. While Parks & Recreation provides a extensive hose for gardener use that runs from the site maintenance building, this hose does not reach all of the far plots.

Table 1.0 Community Garden Sites in Keene, NH (2013-2014)

Primary Management	Location	Partnering Organization(s)
Monadnock View Community Garden (City of Keene)	Off Park Ave. behind the Monadnock View Cemetery	Parks & Recreation
Recreation Center	312 Washington Street	Community Garden Connections (CGC) (http://www.antiochne.edu/cgc/), Early Sprouts (http://www.earlysprouts.org/)

²⁶ Note: this assessment does not include school-based gardens.

Keene Family YMCA	200 Summit Road	CGC
Keene Housing Authority: Harper Acres	105 Castle Street	CGC
Keene Housing Authority: Clubhouse	8 Harmony Lane	CGC
Keene Senior Center	70 Court Street	CGC
Woodward Home	194 Court Street	CGC
Prospect Place	361 Court Street	CGC
ACCESS	217 Washington Street and 147 Washington Street	CGC
Monadnock Area Peer Support Agency	64 Beaver Street	CGC
C&S Wholesale Grocers	10 Optical Drive	CGC
C&S Wholesale Grocers	7 Corporate Drive	CGC
Antioch Campus Garden	40 Avon Street	Antioch students

Community Garden Connections

Established in January of 2011, Keene Community Garden Connections (CGC) is a project of the Antioch University New England’s Department of Environmental Studies. The purpose of this project is to build Keene’s local capacity to grow food and address issues of food insecurity related to climate change, personal and communal health, and resiliency. CGC’s establishment was informed by the City of Keene’s Comprehensive Master Plan, the City’s climate action plan, and Healthy Monadnock priorities. Through support from the Rashti Foundation, CGC supports the installation and cooperative maintenance of raised-bed gardens in partnership with local service agencies, community members, students, staff, and faculty.

The following site descriptions are excerpted from Antioch’s CGC webpage:

<http://www.antiochne.ed/cgc/currentsites/>

Keene Senior Center

Location: 70 Court Street

The Keene Senior Center on Court Street in Keene has had gardens in place for years, but with CGC's help, the Senior Center now boasts raised terrace gardens that provide easier access for seniors to garden. There is some excellent garden knowledge at the Senior Center which will undoubtedly help in the successful implementation of the garden produce. Some of the food grown will be used directly at the Senior Center and some will be donated to The Community Kitchen. The Senior Center is also working to establish partnerships with area schools to foster intergenerational collaborations.



Monadnock Area Peer Support Agency

Location: 64 Beaver Street

In 2012 the CGC started a partnership with Monadnock Area Peer Support (MPS) Agency. MPS has six beds at their facility and an active group of avid gardeners. They meet every week during gardening season to make collective decisions and are always learning a new skill to apply. The produce is shared between the gardeners and some is used in weekly community meals at the MPS office.



Keene Housing Authority: Clubhouse

Location: 8 Harmony Lane

Keene Housing Authority Building Bridges Clubhouse Program

The Building Bridges program is an after-school program for residents of the Keene Housing Authority neighborhood on Harmony Lane in Keene. The program director and the kids came up with the idea of creating a pizza garden that will provide snacks for everyone!





They are also incorporating elements of the Early Sprouts gardening program in additional garden beds. Children of the aftercare “Clubhouse” have helped plan the garden, plant seedlings, fill the beds with soil, weed, harvest, and cook! The garden has become a part of their everyday curriculum. Fresh food from the gardens that aren’t used for snacks will be distributed to children to take home to their families. Antioch students have facilitated hands-on garden education at Building Bridges as part of Community Garden Connections.

Prospect Place

Location: 361 Court Street

Joining CGC in 2013, Prospect Place is an assisted-living, family style center for senior citizens, and located on Court Street in Keene. They have six garden beds in the front yard. The food is used for community meals and the residents can be found having green bean cutting parties on a regular basis. Residents love taking a stroll in the gardening and harvesting fresh food regularly.



Keene Recreation Center

Location: 312 Washington Street

The Keene Recreation Center is a community facility in the North Central neighborhood of Keene. The gardens are used as an integral component of the Keene Recreation Center’s two after-school programs. The Center’s programs currently serve approximately 120 elementary age children. The Keene Parks and Recreation Center also serves as a training center for other after-school programs in New Hampshire making it an ideal location to serve as a prototype for garden-based initiatives at other area after-school programs.





In 2011, 6 raised bed gardens were built, 4 of which are planted, cared for, and harvested largely by the kids in the after-school program. The vegetables of the Early Sprouts curriculum are cooked by students for snacks as part of the after school programming at the Recreation Center.

ACCESS (Associates in Career, Community and Educational Support Services)

Locations: 217 Washington Street; 147 Washington Street
The Benjamin Franklin School & RISE: For Children and Family

In 2013 ACCESS, an organization that helps people with disabilities create meaningful lives through education, community employment and community partnered with the CGC to established 6 garden beds at two different locations in Keene.

Four beds are located at the Benjamin Franklin Middle School, where students and teachers garden during physical education, at recess and use the gardens as an educational tool. An additional two beds are at RISE, an early childhood center. The children take a walk in the gardens every morning and you can often finding them popping fresh snacks directly into their mouths. Teenagers from ACCESS assisted in building the gardens and volunteer to maintain them throughout the year.



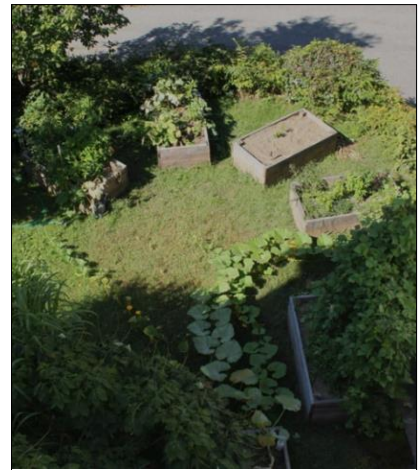
Woodward Home

Location: 194 Court Street

The Woodward Home is located on Court Street in downtown Keene and 6 garden beds were built here as one of our new sites for 2012. The Woodward chef assisted in seed selection, ensuring that the fresh produce will be incorporated directly into meals.



The garden is located in a courtyard behind the building, which not only provides fresh produce and herbs for the chef to use in meals, but also serves as a community gathering place. The location provides convenient access for residents to enjoy the outdoors, the peace of the garden, the company of friends, and the full sensory experience of participating in gardening.



Keene Housing Authority: Harpers Acres

Location: 105 Castle Street

Harper Acres, a Keene Housing Authority apartment complex, has a lovely natural location along the Ashuelot River and next to the bike path in Ashuelot River Park. The residents and staff were delighted to be selected by Antioch University New England (AUNE) for the first round of their community garden project. Although there had once been a garden at Harper Acres, there hasn't been one in recent years. CGC worked with residents of Harper Acres to build raised bed gardens.

Gardeners were able to expand the raised beds, which are used in a variety of ways. Some are for individuals to care for and use and some are community beds for residents to share. There are flowers and some beautiful landscape projects underway in addition to the bountiful vegetable gardens!



Keene Family YMCA

Location: 200 Summit Road

Another garden site is at the Keene Family YMCA. CGC helped to build garden beds for Monadnock Family Services (MFS), the YMCA child care center, and the YMCA membership and young adult programs to share. The YMCA Child Care center has partnered with Early Sprouts to receive training on how to incorporate the gardens into their after school programs. MFS is also using the gardens as part of their programming and several members have already helped with the project to date. The produce will be shared between gardeners and the gardens are providing an opportunity for members of the Kids In-Shape program to get outside and to eat some healthy produce from the gardens. Finally, the YMCA membership and young adult programs are using two of the garden beds here. Through the collaboration of these different groups there are a lot of kids who will have their hands in the soil at the YMCA in the coming years!



C&S Wholesale Grocers Employee Gardens

Locations: 7 Corporate Drive and 10 Optical Drive

Since the 2012 growing season, Antioch University New England's Community Garden Connections (CGC) program has partnered with C&S Wholesale Grocers through this one-of-a-kind workplace garden initiative. C&S Wholesale Grocers of Keene, NH is the largest food wholesaler in the United States, distributing food to supermarkets, retail stores and military bases across the country. This *C&S Workplace Organic Garden Project* complements C&S' community involvement four core initiatives: eliminating hunger; strengthening community; protecting the environment; and encouraging volunteerism. This project also creates opportunities to enhance employee wellness and satisfaction, encourage healthy eating, and increase connectedness to the natural world in this work setting. C&S Wholesale Grocers identified a need for education and project management to best ensure workplace garden success, while Antioch faculty in the Environmental Studies (ES) Department seek avenues for students to gain professional experience and practice-based research.²⁷



²⁷ <http://www.antiochne.edu/cgc/related/>

Antioch Campus Garden

Locations: 40 Avon Street

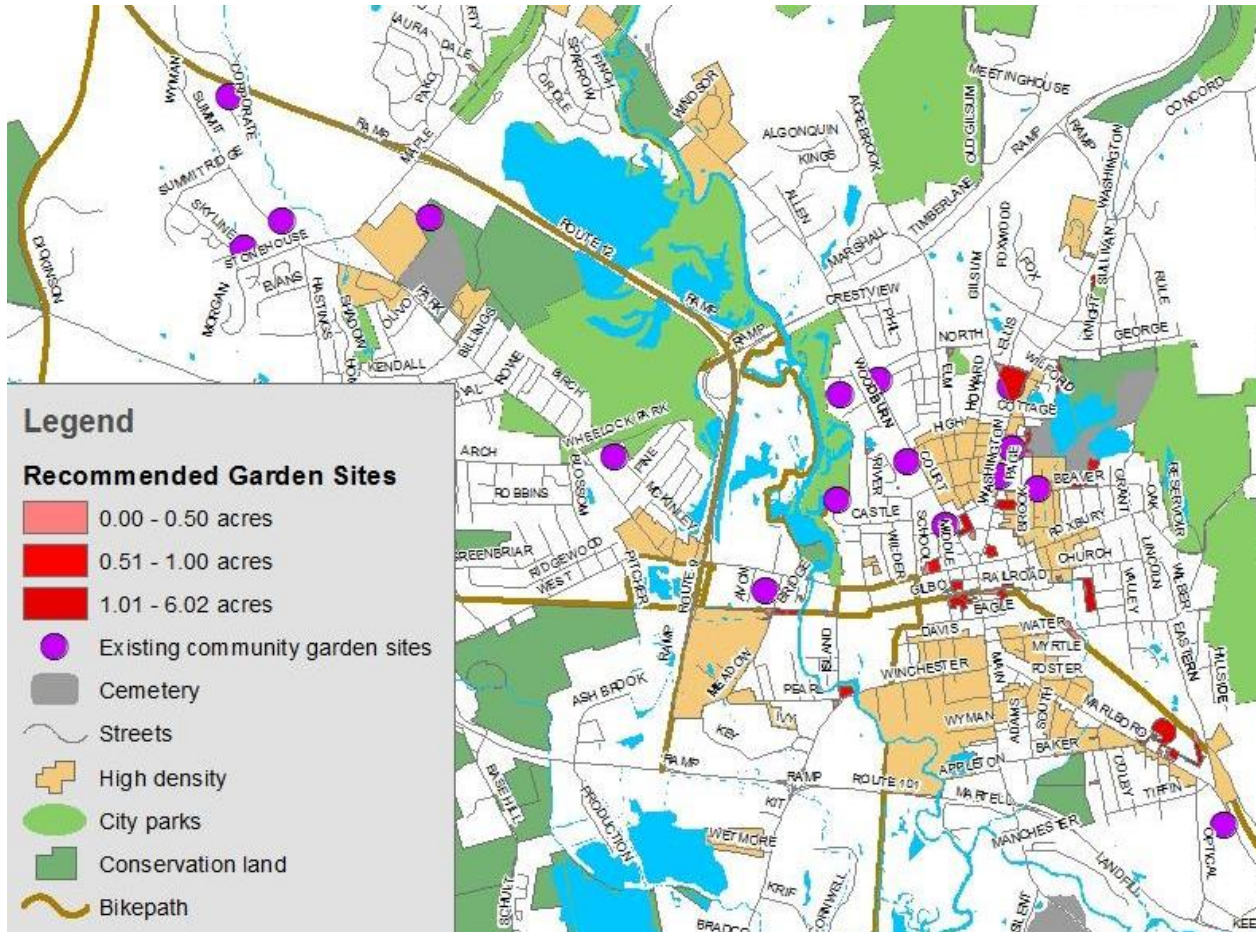
Antioch University New England's School Garden, cultivated in 2009, actively involves students and staff in the continued design, construction, planting, and gathering of vegetables. The vegetables gathered are donated to *Donna's*, AUNE's campus-based Monadnock Developmental Service café, which employs community members with developmental and related disabilities, and Keene's Community Kitchen.



GIS Maps and Analysis

A GIS map was created to complement this needs assessment and final report. The map serves two main purposes: 1) to show the locations of existing community gardens; and 2) to identify potential sites for future community gardens. The recommended areas for garden sites were identified strictly through geographic data analysis. We did not visit any of these suggested areas nor did we investigate the feasibility or potential of building gardens in these locations. If the city was interested in building gardens at any of these locations, additional study would be needed to assess site quality, limitations, and community interest.

Overview



GIS Methods

Geographic data was downloaded from GRANIT, NH's GIS clearinghouse and provided by Will Schoefmann, GIS Technician in Keene's Planning Department. We identified and visited the existing the existing community gardens in Keene during a Food Systems class field trip.

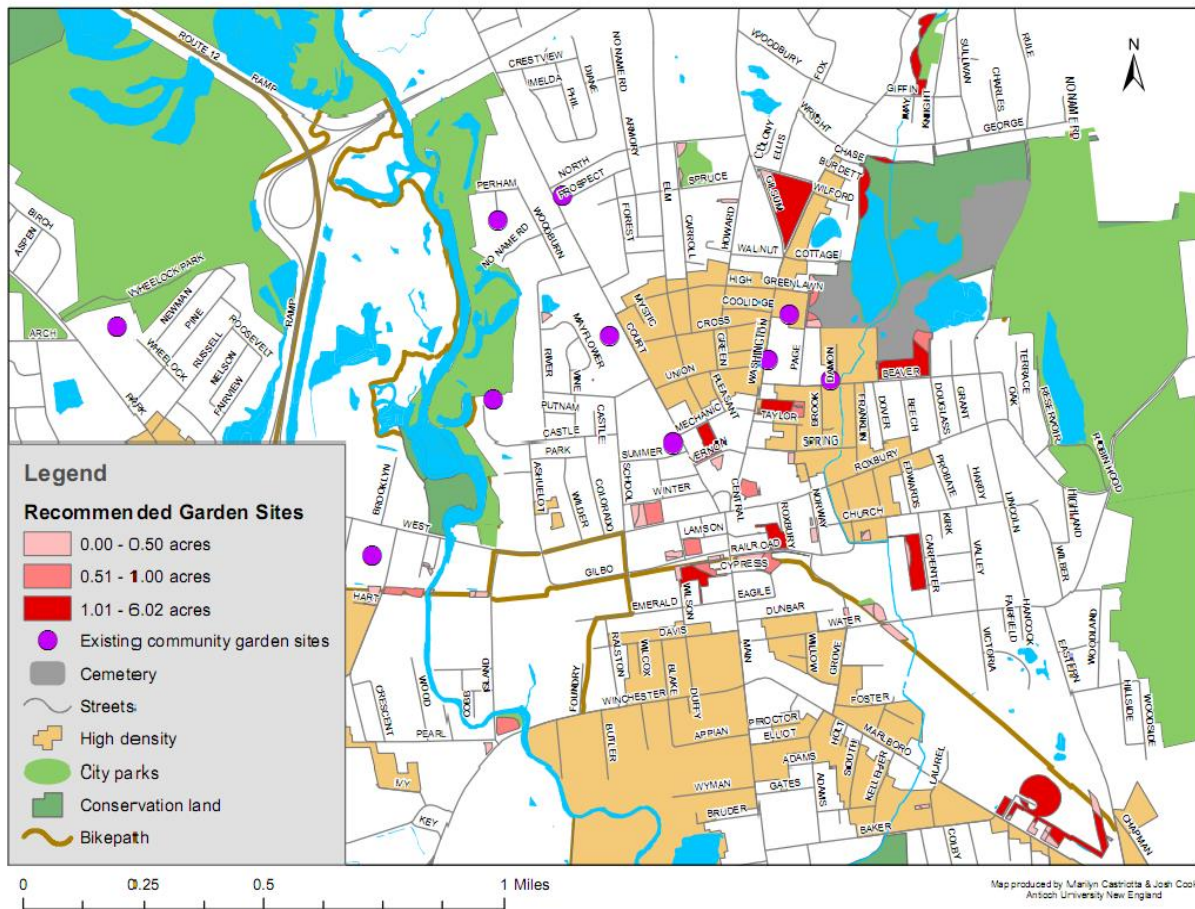
Potential future community garden sites were located for the map using ArcGIS 10.1.

Accessibility was a high priority. Four layers were intersected to identify potential future garden sites: city-owned land, high-density population, sidewalks, and farmland soils. Co-occurrence was determined within ½ mile from the centroid of these 4 layers. The area of resulting sites was re-calculated for accuracy and then divided into 3 categories based on plot size. Marilyn

Castriotta produced the map in a GIS class with assistance from Apollinaire William, AUNE GIS Lab Manager.

Close-up of the Downtown Area

Potential Community Garden Sites in Keene, NH



Results

Seventy six recommended garden sites were identified, encompassing 40.72 acres on land owned by the city of Keene. This includes 56 sites <.5 acre, 10 sites .51-1.0 acre, and 10 sites >1.0 acre, for a total of 9.37, 7.09, and 24.26 acres, respectively. These findings were reported to the KAC, along with a copy of the resulting map. For more details, see **Appendix 6: GIS Map_KAC Report**

Interviews with Key Informants

The aforementioned best practices can be useful when organizing community garden efforts; however, it makes little sense to improve existing gardens or build new ones without some sense of what the community wants. Conducting key informant interviews was identified as an initial strategy to uncover potential challenges and opportunities unique to the City of Keene's current community gardening efforts.

Interview Methods & Future Considerations

We interviewed ten key informants as an evaluative tool to begin identifying some of the community garden needs and interests in Keene. These interviews focused on the community gardens behind Monadnock View Cemetery. Managed by the City of Keene's Parks and Recreation Department, this community garden is the only one in town with garden plots available to the general public. Interviewees ranged from City of Keene officials and employees to individuals beginning their first year of community gardening. We developed a specific set of questions for each interview with attention given to creating open-ended questions to allow for a more exploratory approach.²⁸ The majority of these interviews took place in person. The remaining interviews were conducted by phone or through email. All interviews took place between April 10th and April 30th of 2014 and were conducted by various students enrolled in Antioch's *Community and School-Based Food Systems* class. For a more details, see **Appendix 5: Sample Interview Guide**.

While we followed standard interview protocols, the results undoubtedly contain certain biases and limitations. Perhaps the main concern is that we talked to a limited selection of individuals in this purposeful, convenient sampling approach. We recognize that interviewees in this limited sample size may have viewpoints that are not representative of the entire Keene community. Additionally, all of the people interviewed were either gardeners or individuals that care about gardening in some way. We recommend that any future needs assessment include a randomized sample and/or Keene residents who may have little or no interest in gardening. We also caution against placing too much weight on our interview findings without expanding the interview process to reach a more diverse sample of the Keene community and associated key stakeholders. Likewise, if the City of Keene is

²⁸ Taylor-Powell, Ellen. (1998). *Questionnaire Design: Asking Questions with a Purpose*. Madison, WI: University of Wisconsin-Extension, Cooperative Extension. Available: <http://learningstore.uwex.edu/assets/pdfs/g3658-2.pdf>

interested in developing other community garden sites in the future, we recommend conducting additional interviews and surveys specific to such a project.

Interview Findings

Data analysis began as interviews were completed. Interviewers reviewed field notes and digital recordings (where applicable) of their completed interviews. Then, interviews were partially transcribed and major themes within each response were highlighted. Qualitative data were analyzed by identifying themes that emerged from responses to each question. Larger themes began to emerge across the entire data set and are discussed in more detail in the following section.

History and Interest in Keene’s Community Garden Efforts

There is a strong history of growing food locally in Keene and respondents recognized the value of the City of Keene providing gardening opportunities for residents. The Monadnock View Community Garden has been in existence for 40 - 50 years and was well utilized by Keene citizens in the past. All interviewees indicated a high interest in community gardening. As one long-time Keene resident respondent stated, “There used to be a lot more agriculture in this area. People are realizing there are some advantages to

“I think it is so exciting and empowering to grow food for yourself and be connected to the process of growing food from start to finish. Nothing feels better than planting something, and nurturing it and caring for it and picking that tomatoes or piece of kale and sharing it with your friends. I just can’t stop smiling thinking about it!”

---Keene citizen and gardener

local food, spiritual advantages, as well as taste advantages, even some economic advantages.”

In contrast, a new Keene resident (less than 1 year) indicated that these community plots offered gardening space that was not available elsewhere: “I rent an apartment... and there is not great light there... [which] sparked my interest in getting a community gardening plot...” Other respondents mentioned the value of gardening for themselves in terms of therapeutic value, social connectedness. As one gardener stated: “I find [gardening] relaxing, weeding rows is like meditation.”

Monadnock View Community Gardens—Potential Obstacles

This community garden site does have some positive aspects and qualities that gardeners may like. However, all of our interviewees identified issues and obstacles that hamper the success of this site. Some of these challenges may be addressed relatively easily and economically. Other issues might be more time-intensive and/or complicated to address in ways that maintain

stakeholder engagement and satisfaction with identified solutions. The following obstacles were identified through the interview data:

- **Insufficient Information or Marketing.** Finding easily accessible information about the community gardens was identified as a barrier by interviewees. Unless an interested individual already knows that the gardens are overseen by Parks & Recreation, respondents indicated there is no readily available avenue(s) to access information on how to rent a garden plot. Similarly, the information packet provided to first year gardeners did not offer enough information for some people to find Monadnock View Gardens' (MVG) geographic location in town, or enough information to locate an individual plot within the gardens.
- **Far from Town Center.** A majority of key informants interviewed for this assessment project suggested that the MVG may be inconvenient for potential gardeners, given the location is not near the center of town. More than one respondent suggested that MVG would be incredibly difficult for an individual to access without a car. They also indicated that public transportation to the site is inadequate, especially if a gardener was hauling garden tools. Another interviewee worked for a different community garden with a location similar to Keene's, outside of the city center. This person suggested that the great distance from the town center was the primary reason why that particularly garden failed to attract participants. Another interviewee suggested that having a secluded site was a benefit for preventing theft and vandalism. However, if the goal is to increase participation and build a sense of community, this outcome would probably be easier to achieve with more centrally located gardens.

“In past community gardens [where I gardened], I was helped by the folks with garden plots around me who had greater gardening experience. What helped so much was accessibility to tools and water and the advice of others.”

--Keene resident and gardener
- **Difficult to Find and Not Visible From Road.** Someone interested in visiting the Monadnock View Gardens for the first time may find them difficult to locate. [Anecdotally, our class could not find these community garden plots during one of our field trips, despite knowing that the gardens were near the Monadnock View Cemetery.] While Parks & Recreation does provide a brief information sheet about the community

gardens, this sheet does not include location information. Key informants interviewed also identified problems associated with the garden's visibility from the nearest main road. Informants that had been involved with other community gardens suggested that garden visibility—and the sight of people gardening there—is an extremely powerful marketing tool. It was also suggested that less obviously located gardens might have more theft because they cannot be watched over by the community. Finally, it was suggested that isolated gardens, out of view from populated roads or city centers, could be dangerous to someone working alone at the site.

- **Poor Water Access.** Interview data suggest that access to water at the Monadnock View Gardens is less than ideal. As of now, the hose provided does not reach all garden beds, requiring some individuals with the farthest garden beds to carry water in buckets. This situation is not specifically outlined in the information package provided by Parks & Recreation. Current gardeners have noted that they are worried about this poor water situation and the hardship associated with carrying enough water to their beds.

Successful community gardens have been started without good water access; however, those gardens immediately initiated actions to provide better water access. One successful community garden without water made it their first order of business to dig a well.

“...the space [at Monadnock View] seems tough. There is not really a hose that you can run right to your garden. I’ll definitely be hauling water. My guess is that I will have to make 6 or 8 trips to and from the water source with buckets to get a proper watering.”

--Keene resident and gardener

- **Late Start and Early End of Season.** Several informants suggested that the rototilling, which opens the garden season at Monadnock View Community gardens happens later in the season than is ideal. The rototilling typically happens late in May, after a significant part of the early growing season has already past. This timing makes it difficult for interested gardeners to start early season vegetables like greens and potatoes. Similarly, the end of the season deadline for having beds completely cleared of all crops does not allow for late season vegetables. Finally, crops that over-winter, such as garlic, are currently impossible to cultivate at the community garden.

- **Private Control.** The Monadnock View Community Garden is currently run and managed by City of Keene's Parks & Recreation, but until recently it had been overseen by a private citizen for roughly 20 years. During the latter part of this 20 year time period, the community gardens did not receive proper maintenance and marketing. It also appears that this period was marked by a decline in public interest and popularity of the Monadnock View Community Gardens. The City of Keene's newly established oversight is an exciting new opportunity to support gardeners. Our suspicion is that future evaluative feedback will indicate support for the newly reinstated direct involvement of the City of Keene.

Future Recommendations

In this document, we have identified best practices and offered tips for enhancing community gardens, informed by document review, interviews with key informants, and GIS mapping of current-future garden sites. The following recommendations section consolidates suggestions we believe the City of Keene and Agriculture Commission should consider to further support community gardening in the future.

- **Improve Community Garden Infrastructure.** The Monadnock View Community Garden could benefit from several infrastructure improvements. A centrally located water spigot and a hose to reach all of the garden plots should probably be the number one priority. Tilling the garden beds either earlier in the spring or later in the fall would allow gardeners to have a longer growing season. However, a balance must be reached because it is unadvisable to till too early in the season when the ground is very wet. Clearer delineations between garden plots would be helpful. Perhaps mulch hay could be provided for gardeners to make paths as markers. Providing a place to store tools and/or access to a few rakes and shovels could make the gardening process easier for many individuals. Signs, a message board, and benches or picnic tables would help to facilitate community building at the gardens. Places in the shade to rest and socialize are valuable features of any community space.

- **Enhance Synergies and Build upon Successes**

We encourage The City of Keene and Keene Agricultural Commission to continue enhancing synergies among organizations with complementary missions. Such partnerships can better ensure the long-term success of the current City of Keene garden site, and offer unique opportunities to support each other's efforts. Also note that community garden plots have increased in the past 3 years through other organizational avenues (e.g., Community Garden Connections (CGC), C&S employee garden beds, etc.). These programmatic initiatives also partner with the Keene Community Kitchen's Gleaning Program to significantly increase food donations. These gardening trends also may mask community interest in gardening since such interests are addressed via these other avenues in Keene. The City of Keene and Agriculture Commission's support would be a welcomed addition to these programmatic efforts.

- **Provide More Information to New and Prospective Gardeners.** New gardeners who sign up for a plot would benefit from a thorough information packet introducing them to the garden. See previous best practices section, as well as Appendix 2 and 3, for suggestions.

- **Encourage Greater Leadership of Community Gardens.** As discussed in the best practices section, community gardens are most successful when they have a champion or clearly identified leader to ensure success. In lieu of long-term staffing with the City of Keene, consider developing a community garden internship position as a starting point. Supervised internship opportunities could be an effective avenue toward establishing strong garden champion(s) for the Monadnock View Community Garden. A number of interviewees suggested that an internship be created for either an Antioch University New England graduate student and/or Keene State College student to educate gardeners and coordinate site activities. One synergistic idea is to have an Antioch student serve as the primary City of Keene Community Garden Manager and oversee/enlist the help of Keene State undergraduates as additional interns. The intern(s) could answer gardening questions, lead educational workshop, facilitate community building events, partner with other complementary organizations, and work with Parks & Recreation staff to manage the garden.

- **Increase Promotion of Community Gardens.** Well-utilized community gardens, that either have waiting lists of interested gardeners or continually grow, are well marketed and known entities in their communities. The marketing of these gardens is done using

strategies such as: flyers placed in well trafficked public areas; town newspapers and announcements; social media and well-developed Internet visibility. Similarly well utilized gardens are usually located in visible locations, with clear signage informing visitors about the gardens. One suggestion was that such marketing could be provided by a student intern at either Antioch or Keene State. Alternatively, this could be a task for either Parks & Recreation staff or the Agriculture Commission members.

It is important to note that our interviews did reveal some conflicting opinions on the correct amount of marketing to do for community gardens. A few respondents suggested that too much marketing will result in unwanted attention to the community gardens such as looting and vandalism. However, a number of interviewees also suggested that the Monadnock View Community Gardens need more marketing and promotion. The City of Keene will need to weigh these pros and cons moving forward.

- **Encourage Community Building.** Well-utilized gardens also tend to employ a variety of community building activities. Some of these activities include barbeques, potlucks and other social events that allow gardeners to meet and share knowledge, stories, etc. It has been suggested that the strong personal relationships among individual gardeners and between the group of gardeners and their neighborhood prevent problems such as looting and vandalism. Additionally, a strong sense community among gardeners allows for the formation of and adherence to garden norms or rules. It is best that these group norms or rules be generated from the group of gardeners involved. An example includes agreeing on whether or not to garden organically (without pesticides or herbicides).
- **Complete a food security analysis at the neighborhood level.** Another suggestion is for the Keene Agriculture Committee to champion a gardening capacity and food security analysis completed at the neighborhood level. Such systematic analyses could help to: gauge interest in—and capacity for—gardening at a more localized scale and assess availability of healthy and/or local produce within stores at the neighborhood level. This information would offer another lens for understanding our community’s food security. Likewise, the results could inform collaborative efforts of community stakeholders to design and implement future community gardens and related agricultural activities.

- **Enhance existing collaborations with AUNE’s Community Garden Connections (CGC) and find new ways to involve the broader community in the gardens.**

There is great potential for synergy through co-sponsorship of garden workshops, educational materials development, etc. to enhance collective community gardening efforts. Explore additional collaborative efforts with CGC garden sites and partners, such as the Keene Family YMCA, Monadnock Developmental Services, Keene Recreation Center, CGC schools, Keene Senior Center, ACCESS afterschool programming and/or other programs for education and garden space. The Keene Agriculture Commission (KAC) may want to explore other partners to support gardens at locations throughout the Monadnock Region. As time and interest allow, the KAC could facilitate networking and volunteer opportunities at CGC’s Westmoreland Garden. A partnership with the County of Cheshire, this 1-acre plot is managed by CGC staff and encourages community members to help plant, tend and harvest produce, which is donated to the Keene Community Kitchen and CGC partner agencies.

- **Consider Creation of More Community Gardens in More Central Locations.** Some interviewees suggested that there may be a need for more community gardens closer to Keene’s downtown. This would enable individuals with transportation constraints to participate. It was suggested that potential sites for community gardens would have to be re-zoned, but this remains uncertain and would require further research and additional discussions with planning and zoning administrators. A few suggested locations that were consistently mentioned in interviews for additional community gardens included the Keene YMCA, the Keene Public library, and the vacant lot just east of the Monadnock Food Coop and the Railroad Square Condominiums.

- **Further Assess Community Engagement.** Our interviews of a handful of key informants were intended to be just a starting point in a larger effort to better understand the gardening needs of the Keene community. We recommend continuing to reach out and collect information in a variety of ways. A simple approach for gathering information from gardeners at the Monadnock View Gardens would be to ask them to complete a questionnaire at the end of the season. If this is not being done already, this feedback process could be a great way to learn more about what gardeners need and like. Additionally, a survey could be conducted in the neighborhoods close to the Monadnock View Gardens to assess how many of these residents know about and/or utilize the site.

Suggestions for continual improvement and barriers to why nearby residents do not use the community garden could be revealed.

If the City of Keene plans to develop any new community gardens, soliciting stakeholder input is invaluable (e.g. surveys, interviews, focus groups among residents in the area). A new garden should probably not be installed unless there is consistent data and strong indications that a new site would be well utilized. Gathering more information from the community could also reveal important considerations in site placement, design, and management.

Appendix Section



Appendix 1:
Sample Internship Description

ENVIRONMENTAL STUDIES INTERNSHIP—ANTIOCH UNIVERSITY NEW ENGLAND

POSITION TITLE: CITY OF KEENE: COMMUNITY GARDEN COORDINATOR	
LOCATION Include if internship duties can be fulfilled off-site	MONADNOCK VIEW COMMUNITY GARDENS, OTHER GARDEN SITES AROUND KEENE
NAME AND DESCRIPTION OF ORGANIZATION mission, size, structure of organization	CITY OF KEENE- PARKS AND RECREATION DEPARTMENT, KEENE AGRICULTURE COMMISSION
DUTIES AND RESPONSIBILITIES OF INTERN	<ul style="list-style-type: none"> • OVERSEE/ORGANIZE GARDEN BED SIGN UP • ACT AS A GARDEN LIAISON BETWEEN GARDENERS AND PARKS AND RECREATION • HELP ORGANIZE GARDEN EVENTS & SERVE AS GARDEN CHAMPION TO SUPPORT GARDEN SUCCESS • FACILITATE GARDENER COMMUNICATION • SERVE AS A GARDEN ADVOCATE- MARKETING, PUBLICITY, SOCIAL MEDIA, ETC. • PROVIDE HANDS-ON GARDEN EDUCATION AND RESOURCES
SKILLS REQUIRED FOR POSITION	<ul style="list-style-type: none"> • GOOD COMMUNICATION SKILLS • GARDEN KNOWLEDGE • ENTHUSIASM FOR COMMUNITY BASED WORK
WHO WILL BE THE INTERN’S SUPERVISOR Include title and their responsibilities	<ul style="list-style-type: none"> • TO BE DETERMINED
HOURS AND TERM OF APPOINTMENT Students will be looking for a minimum of 225 hours of work. Please Specify the semester— Spring or Summer. Be specific about when you would need the intern during the week or state that hours can be flexible.	<ul style="list-style-type: none"> • TO BE DETERMINED
REMUNERATION It would be nice if you can minimally offer a small stipend, or even travel expenses.	<ul style="list-style-type: none"> • TO BE DETERMINED
FOR MORE INFORMATION OR TO APPLY, CONTACT	

Workplace Garden Physical Features

The following document outlines important considerations for designing and setting up your garden site. Careful thought about site selection and garden infrastructure early in the planning process will ensure a site that best suits the goals of your project and the needs of your employee gardeners.

Site Selection

When picking your garden site, there are several site conditions you should take into account early in your planning process. Even if your site does not have all of the following optimal site conditions it is important to consider the site's potential for meeting plant, participant, and site-use needs.

Optimal Site Conditions

- Light:** At least 6 hours of direct sun daily
- Drainage:** Little to no standing water after heavy rains
- Accessibility:** Close proximity to facilities; land as level as possible
- Exposure:** Some protection from high winds; avoid low lying frost pockets
- Water:** Close available water source
- Soil:** Good soil quality & safety (if doing in-ground plantings)
- Wildlife:** Pay attention to wildlife patterns at the site; consider crop damage potential for various animals; if deer or other large animals are present, fencing may be necessary
- Safety:** Site promotes personal safety (i.e. away from traffic); If digging, make sure not digging on any utility line (Call Before You Dig—dial “811”)
- Size:** Space large enough for the number of participants and garden tools, and a diversity of activities
- Availability & Sustainability:** Site available for garden construction by April & will remain available into the foreseeable future

Communication/Education

While communication is more of a systematic element to garden operations, there are several physical features you can add to your site to promote communication & garden learning.

- ❖ **Bulletin board:** Best placed in an easily viewed & accessed area of garden. Protect with a weather-proof viewing case or under shelter.
 - Garden Leadership use for posting garden education tips, garden guidelines, announcements, etc.

- ❖ **Dry Erase board:** Best placed in an easily viewed & accessed area of garden. Protect under shelter.
 - Gardener-to-gardener communication board for posting announcements, requesting assistance, & general communication; Garden Leadership to Employee Gardener communication for same purposes

- ❖ **Garden Sign:** Place at the front/entrance to the garden with good visibility. Sign itself should be colorful, attractive & depict the nature of the garden project. Sign content should include the garden name & its mission in large lettering, readable from a distance. Sign material should be as weather-proof as possible. Sign should be mounted on a sturdy post that stands at average eye-level.
 - Provides information on C&S Workplace Organic Gardens project & mission for other C&S employees and/or visitors

- ❖ **Educational signs:** Depending on how you garden is set-up it may be useful to put up other educational signage around the gardens. Some possible signage might include:
 - Signs beside the compost system to instruct what should be done with garden waste and how piles should be maintained;
 - Signs in the Community Giving plot(s) that instruct volunteers on the maintenance, harvest, and donation systems
 - Signs in the Community Giving plot(s) or other communal plots that identify plants
 - Signs at the garden gate with instructions/warnings for using electric fencing, if present

Growing space

Before offering growing space to employees, measure out your garden area to see how much space is available for beds, how much space needs to be kept in paths, and how much space should be left for other features (such as compost, shed, benches, fencing, etc.). Once the amount of space available is determined, survey employees to get a sense of how many people are interested. Leave space for expansion in future years, if possible.

Garden Beds

- ❖ For beginner gardeners a good space is a 4x8 raised bed.
- ❖ For gardeners who are more experienced you may want to offer either multiple beds or larger beds, depending on the amount of space available.
- ❖ If you are choosing to donate a portion of produce from the garden to local hunger relief agencies, you will need to think about whether you want the produce to come from individual beds (each gardener donates 10% of produce) or whether you want produce to come from plots dedicated for donation and maintained communally (further details found in the Volunteer Plan). If using communal beds, to determine the correct size, you may want to ask:
 - How many people are able and willing to tend communal beds?
 - How much time will gardeners be able to dedicate to volunteering?
 - Is there someone in a coordinator role to manage the volunteer system?
 - What volume of donations can your local hunger relief agencies accept?

Pathways

❖ **Material:**

- Grass—must be mowed/maintained regularly; low cost (maintenance only)
- Mulch (cardboard & woodchips, plastic & woodchips)—keeps down weeds; must replenish each year; relatively low cost (sometimes found for free)
- Semi-permanent materials (paving stones, bricks, gravel)—should only need to be maintained every few years; uneven surface; can be expensive
- Permanent materials (http://www.cacscw.org/special_needs_resources.php)—even surface for navigating garden area; impermeability will change natural storm water patterns of your site; expensive

❖ **Width:**

- If grass, will be maintained by riding mower, push mower, or weed whacker. Speak with Facilities about what they would prefer to use and the size of their equipment (particularly width).
- Ideal space for foot traffic: 3-4 ft. wide; for 1 wheelchair: 4-5 ft. wide

Water

Especially in communal gardening settings, it is important to have an easy-to-use & maintain watering system. Some features to consider:

- ❖ **Easy access:** The water source is a reasonable distance from the gardens and is accessible to employees 24/7.
- ❖ **Quality hose:** It is well worth it to purchase a high quality hose that will be less likely to burst or kink.
- ❖ **Short hose:** If possible, avoid 100+ of feet of hose that will be difficult to drag to the watering area and re-coil after each use. If your water source is longer than about 100 feet, it may be wise to bury a water line that pops back up right in your garden area through a pump or spigot. See your local hardware/garden store to learn more about what is necessary to make this happen. Take into consideration that the line will need to be buried underground below the frost line, depending on where you are located in the country. Check with your state's local USDA service center for more information: <http://www.nrcs.usda.gov/>. Also to avoid pipes bursting in the winter, it is a good idea to blow out your water lines at the end of each season with compressed air.
- ❖ **Multiple sources:** If possible, provide hose splitters or multiple spigots that reach all far ends of the garden, so that the far-end gardeners aren't left with the task of dragging the hose across the entire garden and more than one gardener can water at a time.
- ❖ **Gentle hose attachments:** When purchasing your hose attachments consider a shower wand, drip irrigation, or a sprinkler system.
- ❖ **Alternative watering systems:** You may want to consider an alternative watering system if you do not have an accessible water source. Large water storage tanks can be placed in the garden area and re-filled when necessary. If a reasonable-sized roof is located nearby, rain barrels can be attached to the gutters, making use of rain water rather than increasing the company's water bill. Both the water tubs and rain barrels can be raised on pedestals so that there is pressure to run a hose from them; otherwise gardens would need to be watered with watering cans.

Crop damage control

As noted under Site Selection, it is a good idea to assess the wildlife present or potentially present in your garden area. There are wildlife controls such as organic sprays, planting deterrent plants around your crops, or other physical deterrents; however, often gardeners find that to really keep the critters out it is wise to fence in the entire garden area. Things to consider when putting in fencing:

- ❖ Make sure the material and location of your fence does not shade-out your garden.
- ❖ To keep out deer (the high-jumpers), at least 8 ft. high fence is recommended, or a multi-strand electric fence.
- ❖ To keep out smaller rodents, it is helpful to have fencing close to the ground. This can be achieved with either electric net fence or strategic placement of electric lines close to the ground.
- ❖ If you are building raised garden beds you can keep out rabbits, gophers, moles, and groundhogs (the diggers) by putting a barrier in below your beds. If your beds are 12-18 inches or higher, attach 1/4-1/2-inch steel wire mesh ("hardware cloth" works well) to the bottoms of your bed frames before filling them.
- ❖ If using electric fence, pay attention to where you want the opening to be. There should be at least one major access point where the fence can be removed safely and easily. Gate handles are recommended for safe removal of the fence when it is electrified, and clear warning and instructional signs are imperative for safety purposes.

Garden Structures

Most garden sites will require outdoor storage space for garden tools and a place for gardeners to dispose of their garden waste. Before purchasing anything you may want to ask yourself a few questions:

Shed

- ❖ What tools will you need to store? How much space will they take-up?
- ❖ Do you need a shed or will another storage system work?
- ❖ Will your shed be locked? Who will have access to it?
- ❖ Are there any other purposes for your shed (i.e. shelter for bulletin board &/or dry erase board)? If so what is needed to meet those purposes (i.e. easy-to-drill-into, wide overhang, etc.)?
- ❖ How will the shed fit into the aesthetics of the garden (i.e. color, material, ability to paint surface)?

Compost

- ❖ How much garden waste will you be dealing with? *Tip:* A 36 cubic foot compost space is typical for a home gardener, but this space can easily fill up in a day with multiple gardeners. Consider starting with a 3-chamber compost system that accommodates a volume of over 100 cubic feet for a group. Multiple chambers provide the option to move the compost as it begins to break down, helping aerate and hasten decomposition.
- ❖ Are there any regulations (town, neighborhood, company) for plant waste disposal? *Tip:* Some areas will not allow open compost piles, but have no regulations for closed bins.
- ❖ What is the purpose of the compost—to generate compost for use, or primarily as a way to dispose of garden waste? *Tip:* If just interested in disposal check with your local town facilities to see if they can handle vegetative waste.
- ❖ Is this compost pile for garden waste only or would you also like to allow food waste from the cafeteria or landscape clippings (if not treated)? *Tip:* If you are adding any non-garden food waste or lawn waste, you will need to plan for a much larger system.
- ❖ Who will maintain the compost pile (volunteers, garden coordinators, facilities personnel)? *Tip:* Consider how useable your system is for those maintaining it. It could be useful to have general guidelines posted and consistent over-sight.

Relaxation/Leisure

Don't forget to include space in your garden site plans and in your budget for other features in the garden area that provide gardener and non-gardener employees with places to relax and enjoy the garden. Some features to consider:

- ❖ Benches
- ❖ Picnic tables
- ❖ Shade areas
- ❖ Gathering &/or teaching areas
- ❖ Fruit trees & berry bushes
- ❖ Outdoor cooking

Appendix 3

SAMPLE COMMUNITY GARDEN CONTRACT

(Information in parentheses is to be determined by individual garden)

Common Ground Garden Program, University of California Cooperative Extension, Los Angeles County
4800 E. Cesar Chavez Avenue, Los Angeles CA 90022
Phone (323) 260-3407; Fax (323) 881-0067; Email <ydsavio@ucdavis.edu>

(Watts Family) Community Garden Contract Rules, Terms, and Conditions for Participation

Introduction

The (organization/garden manager) is the highest governing authority at the (Watts Family) Community Garden.

Breaking any rules, terms, and conditions is cause for exclusion from the garden and loss of your plot.

1. You will receive one verbal warning from the garden manager.
2. If no response or correction has been made, you will receive written notice two weeks later.
3. In another two weeks, if no response or correction has been made, you will receive written final notification that you have forfeited your gardening privileges and plot.
4. You will be allowed to reapply for another garden plot only after one year, and only at the discretion of the garden manager.

Rules, Terms, and Conditions for Participation

If accepted as a gardener, I will abide by the following rules, terms, and conditions:

1. I use this garden at the sole discretion of (Watts Family) Community Garden. I agree to abide by its policies and practices.
2. The fee for the use of the garden is (\$32.00) per plot, per year (January 1 – December 31), due on or before (January 1). Fee for half a year after (beginning July 1 or later) is (\$16.00). There are no refunds.
3. Once I have been assigned a plot, I will cultivate and plant it within two weeks. I will garden year round. My plot cannot be left fallow or unused for any period of three weeks or longer, more than one time a year.
4. My plot is (20 x 20) feet. I will not expand my plot beyond this measurement or into paths or other plots. I will keep all my plants within the limits of my garden plot and will not allow any plants to grow more than six feet high. I must keep my plot free of weeds, pests and diseases.
5. I will keep my plot, paths, and surrounding areas clean and neat. I will completely separate my trash into three groups: 1) dead plants, leaves, and other green waste plant parts; 2) rocks, stones, and asphalt; and 3) paper, plastic, cardboard, wood, metal, etc. I will put each type of trash only in the areas designated specifically for each. Anything I bring from my home I will take back home. I will not bring household trash and leave it at the (Watts Family) Community Garden.

Sample Form: Garden Rules and Regulations

Garden rules should be established for every community garden. Rules are an excellent way to ensure everyone understands how the garden will operate and what is expected of each gardener. These rules are intended as a guide only. Each garden's rules will vary depending on the needs of each garden.

Garden Rules

1. Each gardener is responsible for the maintenance and upkeep of their garden plot. Watering, weeding, harvesting and any other garden related maintenance are all the responsibility of the gardener. Gardeners may arrange for other gardeners to water their plots.
2. Tools will be made available for use during the regularly scheduled work time each week. A limited number of tools, hoses and watering equipment will be available in the community garden storage bin for use during non-scheduled work times. Regularly scheduled work times will be posted on the garden bulletin board.
3. Each gardener will be given one key to the garden and the storage bin for access to tools and watering equipment. Gardeners are responsible for bringing that key each time they work in the garden. Keep garden gate and storage bin locked at all times and return all tools.
4. Children are welcome in the garden but must be accompanied by an adult and must be supervised at all times.
5. Each gardener must complete a Release of all Claims form before any work in the garden can begin.
6. Garden plots should be cared for at least once a week. It is the gardener's responsibility to notify the coordinator if he or she is not able to care for their plot in any given week. If any plot remains unattended for more than three weeks that plot is subject to reassignment.
7. The application of herbicides (weed killers) to the garden plots is prohibited.
8. Assignment of garden plots will be awarded by a lottery system. Preference for next year's plots will be given to this year's participants first.
9. Plot fees are due in full before the garden season begins.
10. Gardeners may harvest vegetables and flowers from their garden only.
11. At the end of the growing season, gardeners are responsible for clearing their plot of all plant material and leaving the plot as they found it in the spring.
12. The Garden Committee is responsible for ensuring that the rules are followed at all times. The committee is made up of gardeners elected each year at the spring meeting.

Appendix 4

Sliding Scale Plot Fees

At CAC gardens, we use a sliding scale to determine plot fees for each family. This is a way that all gardeners can afford to participate and garden expenses can be shared from each according to her/his ability. In 2006, 400 square foot plots (measuring 20' x 20') will rent for \$7.50 to the lowest income families or up to \$50 to the highest income families. Below is the chart that we use to determine plot fees, depending on family size and income.

CAC Community Garden Plot Fee Sliding Scale 2006																																																																																					
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Appendix 5: Sample Interview Guide

Person of Interest Interview for informing Keene Community Garden enhancement

Interviewer's Name:

Interviewee's Name:

Date/time:

Place of Interview:

Introduction

Hello,

Our Food systems class has been working on a project for the Keene Agriculture Commission to inform the enhancement of community garden in Keene. Because of your experience as a gardener at the Monadnock View Community Garden, you have been identified as a person who can provide us input and perspective on this project.

All information generated will be synthesized into a final written report given to the city of Keene's Agriculture Commission. This report will be written by students in the 2014 Food Systems class at Antioch University New England. Your identity and any identifying information will remain confidential and will not be included in our final report. The following questions are designed to help solicit feedback on all aspects of community gardens, there are no right or wrong answers and all answers are important. You do not have to answer any question you don't want to.

Guiding Questions

1. Tell us a little bit about yourself:
2. What drew you to community gardening?
3. Tell me about gardening at the Keene Community Gardens?
4. What are some of your favorite aspects, if any, of having a plot at the community garden?
5. What are some barriers, if any, you have encountered in your experience with community gardens?
6. Do know of areas in Keene that would be a good place for community gardens?
7. In your opinion what are some components of a successful community garden?
8. Is there anything else you would like to tell me about community gardens or your experience as a gardener?

Additional Resources

(used to inform this project)

Ackerman-Leist, Philip. (2013). *Rebuilding the Foodshed: How to Create Local, Sustainable, and Secure Food Systems (A Community Resilience Guide)*. White River Junction, VT: Chelsea Green Publishing.

Bauermeister, Swain, & Rilla. (2010) *Marin County Community Garden Need Assessment*. University of California Cooperative Extension-Marin.

Hesterman, Oran. (2011) *Fair Food*. New York: Public Affairs.

Joshi, A. & Andrea Misako Azuma, A. (2009). *Bearing Fruit: Farm to School Program Evaluation*. Retrieved from: http://www.uepitestsite.dreamhosters.com/wp-content/uploads/2012/11/Pub-Bearing_Fruit_Farm_to_School_Program_Evaluation.pdf

Easterling, W.E., P.K. Aggarwal, P. Batima, K.M. Brander, L. Erda, S.M. Howden, A. Kirilenko, J. Morton, J.-F. Soussana, J. Schmidhuber and F.N. Tubiello, IPCC 2007: Working Group II. (2007). *Food, fibre and forest products. Climate Change 2007: Impacts, Adaptation and Vulnerability—Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (Eds.), Cambridge University Press, Cambridge, UK, 273-313. Retrieved from: http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch5.html

Keene Comprehensive Master Plan (2010, September). Retrieved from: http://www.ci.keene.nh.us/sites/default/files/CMP_FINAL_FULL_DOC.pdf.

Mares, T.M. and Devon G. Peña, D.G.. (2011). Environmental and Food Justice toward Local, Slow, and Deep Food Systems. In *Cultivating Food Justice: Race, Class and Sustainability*, Alison Hope Alkon & Julian Agyeman, pp. 197-220.

Monadnock Farm and Community Coalition – A Place at the Table. Retrieved from: <http://www.mfccoalition.org/quarterly-meetings/november-17-2013-a-place-at-the-table-at-the-colonial/>

Taylor-Powell, Ellen. (1998). *Questionnaire Design: Asking Questions with a Purpose*. Madison, WI: University of Wisconsin-Extension, Cooperative Extension. Retrieved from: <http://learningstore.uwex.edu/assets/pdfs/g3658-2.pdf>

World Health Organization. (n.d.). *Food Security*. Retrieved from: <http://www.who.int/trade/glossary/story028/en/>

Other Organizational Web-based Resources of Interest:

American Community Garden Association—Starting a Community Garden: <http://www.communitygarden.org/learn/starting-a-community-garden.php>

American Horticultural Therapy Association: <http://ahta.org/about>

City of Seattle P-Patch Program—Starting a Community Garden:
<http://www.cityofseattle.net/neighborhoods/ppatch/start.htm>

Community Garden Start-Up Guide:
http://celosangeles.ucdavis.edu/garden/articles/startup_guide.html

Community Action Coalition of South Central WI—Community Gardens Division:
<http://www.cacscw.org/gardens/>

Feeding America
<http://www.feedingamerica.org/hunger-in-america/our-research/map-the-meal-gap/>

National Recreation & Park Association—Community Garden Handbook
http://www.nrpa.org/uploadedFiles/nrpaorg/Grants_and_Partners/Parks_and_Conservation/Resources/Community-Garden-Handbook.pdf

Urban Harvest Community Gardens Program:
<http://urbanharvest.org/getting-started-community>

