

Recommendations for Sustainability of the Lafitte Greenway Community Gardens

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The purpose of this report is to inform the Lafitte Greenway Action Planning Committee on best practices to make the future community gardens as successful and sustainable as possible. This document will serve as a guide to lead the planning process, and can be referred to over time as the gardens are created and established.

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I. INTRODUCTION

WHAT IS A COMMUNITY GARDEN?

There's no singular definition of a community garden, but rather a wide array of interpretations. Community gardens in the Lafitte Greenway can embody any number of combinations detailed throughout this report, based on community interest and demand. Below are some definitions.

"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" (Lawson & Drake, 2012).

"A community garden is a shared space where people gather together to grow fruits, vegetables, small livestock, and/or flowers collectively" (Food Security Network of Newfoundland and Labrador, 2011).

"Place where members of community can grow healthy organic food to feed their families. Interact with people/neighbors, getting to know new people" (Bond, 2015).

"A community garden is an area of land set aside for people who need a spot to garden...They can lease a plot and grow veggies, herbs and flowers. It also allows members of the garden an opportunity to form new friendships..." (Barone, 2015).

At the time of writing this report, 73% of community gardens in the United States are in urban areas (Drake). This creates numerous models for New Orleans to look to for guidance.

MODELS FOR COMMUNITY GARDENS

This section lays out various community garden models, none of which are mutually exclusive. The Lafitte Greenway Gardens can be a combination of any of these.

1. *Traditional ("allotment")* - Garden consists of individual and separate plots, along with shared space cared for by all gardeners (Denver Urban Gardens, 2012).
2. *Communal ("collective")* - Entire garden is planted and maintained by the group, with no individual plots. This model is often difficult to sustain (Denver Urban Gardens, 2012).
3. *Teaching*
 - *School-based* - Generally located on school property this garden also functions as an educational gathering space. This garden exposes young people to nature and provides opportunities for them to practice gardening skills. Programming,

classes, and hands-on activities are a crucial part (University of Missouri Extension).

- *Demonstration* - This is also a teaching garden, but designed for an adult audience. It is free and open to the public for classes and static displays. Demonstrations might include different types of gardening methods, plant varieties, composting techniques, nutrition education, and cooking demonstrations. It might be managed by the gardeners, local master gardeners, or a local nutritionist (University of Missouri Extension).
4. *Entrepreneurial/job training* - These gardens exist to teach business or job skills to youth or adults. Gardens grow and sell the produce they raise, with proceeds from sales being used to pay participants for their work (University of Missouri Extension).
 5. *Food pantry* - Food is grown solely for donation often by a food bank/pantry. A more traditional garden might dedicate a portion of land to growing food for donation, and partner with a food bank (University of Missouri Extension).
 6. *Therapy* - Lead by a horticultural therapist, this garden model provides therapy to hospital patients and others needing mental health services (University of Missouri Extension).
 7. *Specialty* - Designed for specific populations (i.e. disabled, those at crisis centers, low-income, etc.) this garden model is very open-ended and can be tailored to any group (Denver Urban Gardens, 2012).

BENEFITS TO THE COMMUNITY

Community gardens can be extremely beneficial to the health and vitality of both gardeners directly involved, and the general surrounding neighborhoods. Below are some specific examples which should be considered throughout planning and implementation, and when applying for funding.

1. Physical

- Increases access to fresh fruits and vegetables
- Increases nutrition knowledge
- Improves healthy eating habits and physical activity levels
- Deepens residents' understanding of the local food system
- Improves mental health through stress reduction

(Food Security Network of Newfoundland and Labrador, 2011)(Drake)(Denver Urban Gardens, 2012)(Lehrer & Dunne, 2011)

2. *Social and cultural*

- Strengthens intergenerational relationships and fosters information sharing
- Creates community organizing opportunities around a common goal
- Empowers individuals through growing their own food
- Increases neighborhood revitalization, social engagement, social inclusion, and strengthens ties to neighborhoods
- Increases neighborhood leadership and volunteerism
- Builds wide volunteer base and brings unique players to the table
- Fosters interaction between organizations and potential partners

(Food Security Network of Newfoundland and Labrador, 2011)(Bond, 2015)(Drake)(Denver Urban Gardens, 2012)

3. *Environmental*

- Beautifies neighborhood, improving residents' perceptions
- Reuses vacant land, mitigates soil contamination, increases biodiversity, and recycles waste
- Improves quality of the urban environment through introduction of green space
- Reduces pollution, use of non-renewable resources, reduces urban heat-island effects, and captures carbon dioxide
- Reduces energy use through decreased transport and food storage time, and eliminates packaging waste
- Reduces the urban loop system by not importing food from rural zones and exporting waste to regions outside the city
- Incorporates use of wastewater for irrigation and organic solid waste for fertilizer

- Promotes alternative development options for land (i.e. cultivation of vacant urban land for agricultural production)

(Denver Urban Gardens, 2012)(Lehrer & Dunne, 2011)(Urban and Regional Planning Capstone Project, 2009)

4. *Economic*

- Creates new forms of income when gardeners sell their produce
- Frees up traditionally earned income for other uses by decreasing food costs
- Reduces neighborhood crime rates, resulting in opportunities for new allocation of public resources
- Provides business opportunities and creates jobs
- Develops workforce and entrepreneurialism
- Sustains farmland and builds local infrastructure
- Increases neighborhood property values

(Lehrer & Dunne, 2011)(Urban and Regional Planning Capstone Project, 2009)

PURPOSE OF THE REPORT

The purpose of this report is to inform the Lafitte Greenway Action Planning Committee on best practices to make the future community gardens as successful and sustainable as possible. This document will serve as a guide to lead the planning process, and can be referred to over time as the gardens are created and established.

II. PLANNING

Leslie Pohl-Kosbau of Friends of Portland Community Gardens states:

There is a lot that goes into thinking and planning a community garden in neighborhoods. Each garden is unique, but they all share the goal of building community through gardening. Cooperation and sensitivity to the people in the neighborhood is most important. It helps to have local people help initiate and make decisions. Once the garden is built, we have found that it is most sustainable when it belongs to a coalition of gardens or a municipal entity that can provide continuity and back-up resources. (Pohl-Kosbau, 2015)

PHYSICAL SITE

1. *Selection considerations*

Consider the following when choosing a site for community gardens: access to water, direct sunlight, accessibility to the community (proximity to older residents' homes and those with limited transportation), visibility to community, truck access (for deliveries of mulch and soil, and access for small growers), and relevant city zoning codes (Kato, 2015) (University of Missouri Extension).

2. *Basic elements of a traditional community garden*

- Garden plots - A community garden should have at least 15 individual plots, some of which should be disability friendly (i.e. raised). Pathways between plots should be at least 3 to 4 feet wide, allowing space for both disabled people to pass through and garden equipment (i.e. wheelbarrows) to fit (University of California Cooperative Extension, 2015). Boundaries for plots can be made of many different materials including: concrete masonry units, modular block retaining wall units, recycled plastic lumber, cast in place concrete, and stacked or mortared stone wall. These materials will not rot (Harmon, & Harrington).

Materials used around the plots should be accommodating to people using all forms of travel. Smooth hard surfaces work well. High contrast and easily detectable edges should be incorporated for those with low-vision (Harmon, & Harrington). Create a weed barrier in the soil by placing a semi-permeable material down in and around the plots. All pathways should also be capped with a weed barrier. This barrier also prevents soil contamination (Mickley-Doyle, 2015). A simple layer of wood chips can be used and generally donated to the garden (Willson & Bantuelle, 2015).

- Raised bed plots should be no more than 4 feet wide (to allow access to plants from all sides without stepping into the bed), and be between 8 and 12 feet long. It's recommended to raise them 8-10 inches from the ground (University of California Cooperative Extension, 2015). Advantages of raised beds include better drainage, beginning with healthier soil, easier maintenance, potential for higher yields, disability friendly, and an extended growing season. Disadvantages include more up-front costs, and soil that dries out faster during periods of heat (Denver Urban Gardens, 2012).
- In-ground plots can be anywhere from 10 x 10 feet to 20 x 20 feet (University of California Cooperative Extension, 2015).
- Water source - The University of California Cooperative Extension recommends that once every four garden beds, a hose bib or faucet be placed in a simple irrigation system. Hand watering is an efficient way to water crops in raised beds. Established plants, such as trees or shrubs, can be watered with drip irrigation. The ultimate type and layout of an irrigation system will depend on where the water is initially coming from. A landscape architect or garden center consultant will be able to provide a recommendation specific to the Lafitte Greenway. (University of California Cooperative Extension, 2015).

The EPA estimates that "manual watering with a hand-held hose tends to be the most water-efficient method" (Denver Urban Gardens, 2012), in comparison to other methods such as drip irrigation. When a water source is not available, on-site water collection can be considered. Rain barrels and cisterns are options (Mickley-Doyle, 2015). One of the most important considerations is making watering convenient for gardeners (Kato, 2015).

- Fencing - The University of California Cooperative Extension recommends fencing to, "keep out unwanted animals and secure the garden at night, consider placing an 8-foot fence around the perimeter. This should reduce theft and vandalism significantly" (University of California Cooperative Extension, 2015). Orchards, demonstration gardens, and program spaces generally do not need to be fenced in (Harmon, & Harrington).
- Tool shed - A tool shed or other structure for storing tools, supplies, log books, and other shared materials is important to have. Depending on the size of the shed, individual storage areas can be designated for each gardener. Recycled metal shipping containers make excellent storage sheds, and are resistant to destruction (University of California Cooperative Extension, 2015). Morgan Tool Sheds are also a great option. They are more expensive, but highly storm resistant and do not require replacement (Burley, 2015). This storage space should be placed centrally in the garden, easily accessible to all gardeners. If the garden is going to have larger expensive farm equipment, have two separate tool

- sheds. Store expensive farm equipment (that also requires skill to operate) in one shed, and more communal hand tools in another. Only a select number of people should have access to the first shed (Gorman, 2015).
- Compost system - Incorporating a compost system into the garden is very important for sustainability. Place it somewhere easily accessible. Explore the different types of systems used and establish what can and cannot be composted by the gardeners (Harmon, & Harrington). It is not recommended to have individual compost bins because they can look disorderly (Denver Urban Gardens, 2012). All permissible material should be broken down into one-to-two inch pieces. This helps speed the natural composting process (Denver Urban Gardens, 2012). One inexpensive option for construction is to use wood pallets to create bins by standing them on-end, attaching in a U-shape, and lining the inside with galvanized rabbit-wire (University of California Cooperative Extension, 2015).
 - Space to rest - Include somewhere for gardeners and the general community to rest (preferably shaded) such as a bench or picnic table. If no trees are available, construct a simple arbor from wood or pipe, and plant mirliton or another edible vine (University of California Cooperative Extension, 2015).
 - Signage - A sign with the garden's name, sponsors, and a contact person's phone number for more information should be placed near the garden's entrance (University of California Cooperative Extension, 2015). Post signs for the community gardens in several locations along the Greenway to educate people on their existence and where they are specifically located.

3. *Other elements*

The following garden elements should be considered when designing a site plan.

- Edible landscapes - With the goal of connecting people to real food, landscape architects and community members around the United States are looking at public walkways and spaces for ways to integrate fruit trees and vegetables into their planning. For inspiration look at the Los Angeles initiative called the Urban Farming Food Chain Project.
- Wildlife habitat - To bring native wildlife into the garden (for both aesthetics and benefits to garden plants) create small habitats for them. Wildlife includes birds, butterflies, and beneficial insects (bees, lady bugs, etc.)
- Specialized garden plots - I.e. berry patches or an heirloom garden.
- Water features - Fountains, rain gardens, etc.

- Restrooms and water foundations - Consider proximity to available restrooms and drinkable water if installing these in the garden is not possible.
- Sufficient car and bike parking
- Play space - For children to use while their parents are gardening. This could be something as simple as a sandbox. Ideally children are helping their parents in their plot and learning about the garden.
- Community gathering space - A central space for larger groups of the community to come together in the garden for events and programs.
- Historical markers and pathways - Include some type of signage to document and respect the history of the site. Consider plaques, a timeline, and the inclusion of personal community stories.
- Art - Incorporate local art into the garden, allowing artists to participate in this project.

CREATING A GARDEN PLAN

In addition to the physical elements mentioned above, the following should also be discussed.

1. Mission, vision, and goals

These are the first elements of the garden plan that should be laid out. Establishing these components makes sure everyone is on the same page and provides guidance as the planning process moves forward. At yearly garden meetings, the mission, vision, and goals should be discussed to ensure the garden is acting according to them. Revisions can be suggested by the community and made as necessary.

2. Garden Team

This "team" consists of all those that must be involved to bring the garden to life and make it successful. It is important to include representatives of various constituents within the community, creating the most diverse team possible. You want to recruit a group of experienced gardeners and individuals excited about garden formation regardless of experience level. When possible, try to recruit groups of people that already have social connections and know each other. This way you do not need to build trust and develop relationships between them, as they already exist (Kato, 2015).

The Garden Team is essentially the initial group of people who come together to plan out the garden and see it through completion. This might be an Action Planning Committee. Members of this team can appoint the Board of Directors (see outline for

this board in subsection #3). The Garden Team should be involved in every part of the planning process. Below is a breakdown of a "garden team".

- Core Group - Between 6-20 people who lead the initial development and management of the gardens before a formal Board of Directors is established (Goodall, 2010). This group could be a subsection of the Lafitte Greenway Gardens' Action Planning Committee, possibly a subcommittee.
- Members - General gardeners that will use the community gardens for growing. They will also be involved in eventual maintenance of the gardens (Goodall, 2010). The process of becoming a member is different in every community garden. Generally members are only those with a garden plot, however there is no reason anyone who wants to be involved with the gardens (i.e. programming in the teaching gardens) cannot become a member. Members are usually charged a yearly fee for their membership, however this is normally for traditional gardens where member have their own plot. If a member does not have a plot to grow, and is simply volunteering their time, a reduced cost or free membership should be considered. See additional information on becoming a member, the application process, waiting lists, and more in following sections.
- Supporters/partners - These include City Council, local businesses, community organizations, garden volunteers, and teachers involved in garden programming. Try to establish a broad base of support (Goodall, 2010).

3. *Garden board and management*

Every garden needs structured organization and an established leadership team. Many gardens around the country use a garden board to manage the garden. The planning process should determine what the board will look like, how many people are on the board, what their roles are, and who are the ideal candidates. Below is a typical garden board break down with a brief description of each role. These positions are voluntarily filled by members of the community, almost always without monetary compensation. The board can be housed within the larger organization running the gardens that holds the financial liability. See appendices for sample bylaws outlining more detailed roles and rules for the board. Keep in mind the five roles below are merely one example, which can be tailored to the Lafitte Greenway Gardens' needs.

Garden Board Roles

- President - The president has several duties including setting and distributing agendas for both Board and general gardener meetings. During meetings, the president must maintain order of all attendees. They are the key liaison between the garden and community partners. This includes any city government departments the garden might be working with. Lastly the President issues violation citations to gardeners as noted by the Garden Liaison position (Hopatcong Community Garden, 2015).

- Vice-President - This position is charged with organizing and updating a list of current garden members, along with the waiting list (if there is one). The VP assigns plots to gardeners as they become available. This position steps up to lead meetings in the President's absence (Hopatcong Community Garden, 2015).
- Secretary - The Secretary maintains gardener forms from year to year including, registration, rules and regulations, and hold harmless forms. When Board of Director positions are open, the Secretary handles the list of nominees. They also record all meeting minutes (Hopatcong Community Garden, 2015).
- Treasurer - This position handles monetary tasks including, creating the annual budget, tracking expenses and revenue, collecting garden member dues, and balancing the budget quarterly (Hopatcong Community Garden, 2015).
- Garden Liaison - Finally the Garden Liaison position is the key contact for gardeners. They are tasked with keeping a ledger to track completed volunteer hours for all gardeners. They notify the entire Board of Directors when new supplies or equipment need to be purchased for the garden, getting approval for these expenses. The Liaison also reports violations by gardeners to the Board, specifically the President (Hopatcong Community Garden, 2015).

The Hopatcong Community Garden Bylaws provide an example of a well functioning Board of Directors, consisting of the above five positions. In addition to the specific roles defined, the board also performs other duties ensuring the garden mission is carried out. Each board position is for a total of two years. Elections for positions are held every year, with two positions being open in odd-numbered years and three positions in even-numbered. Garden member are allowed one vote for each position during the annual October election meeting. In order to run for a position, an interested garden member must submit their name to the current Board at least two weeks prior to the October meeting (Hopatcong Community Garden, 2015).

If a formal board does not make sense for the Lafitte Greenway Gardens, a less structured leadership team can be created. This team should include several passionate community garden members who want to take charge of running and maintaining the gardens. Unique roles can be created, assigning certain tasks to specific leaders. Such tasks include communication, new member induction, site management, and community outreach. (Niemi, 2015).

Decision making

There are a few decision making styles to consider. 1. Consensus (all garden members must agree to the solution), 2. By vote (majority of garden members win), 3. Autocratic (garden board or relevant committee decides, or they appoint a leader to make a decision). Additionally the garden board or a committee can make a recommendation and put it in front of the general garden members for a vote (Bond, 2015).

In a typical community garden, the garden board makes urgent and also minor decisions alone. Larger decisions are put to vote in front of all garden members. This can be done at monthly garden meetings. Information around the item to be voted on can be sent out through email or other channels a week prior to the meeting for everyone to read through. Those attending the meeting can vote, and those not able to attend may be permitted send in their vote ahead of time or vote by proxy for maximum participation.

4. *Guidelines, policies, and rules*

Outline specifics guidelines, policies, and rules for garden operation to eliminate confusion and potential conflict down the road.

As stated by the Food Security Network of Newfoundland and Labrador in a 2011 report:

Garden guidelines will include information about health and safety guidelines for the garden to ensure safe practices by participants and volunteers while working at the garden. These will also include guidelines for working with others, sharing space, and treating fellow gardeners with respect. Guidelines provide a place to record procedures to ensure that from year-to-year new volunteers and participants know how to open and close the garden and run activities throughout the growing season. (Food Security Network of Newfoundland and Labrador, 2011)

Volunteer and participant responsibilities

Outline requirements and expectations of gardeners. Will they be asked to participate in clean-up days, serve a certain number of volunteer hours per month or growing season, attend classes or trainings, attend garden meetings? Most gardens require members to serve garden-wide work a certain number of hours throughout the season, which can be completed through assisting at garden-wide clean-up days, fundraising events, or other events and classes put on by the garden. Members should log their hours and/or report them directly to a member of the garden board assigned to track them (Food Security Network of Newfoundland and Labrador, 2011). Mandating attendance at classes or garden trainings is a way to ensure new gardeners are learning all they need, without singling them out (Mickley-Doyle, 2015). Other responsibilities include maintaining upkeep of personal plots, through weeding and harvesting produce, and maintaining the area around their plot (i.e. pathways and plot borders).

Consequences for failing to complete any of these responsibilities must be outlined (Food Security Network of Newfoundland and Labrador, 2011).

Attaining a garden plot

Determine how you will decide who gets a garden plot and what they need to do to keep the plot (see responsibilities above). Create a waiting list if there are not enough plots available for all those interested. Consider allowing plot sharing, where more than one person maintains a plot. They can split the plot in half or use the plot communally (Hopatcong Community Garden, 2015). Policies to ensure continued local resident inclusion in the garden should be created (Kato, 2015). The garden might have unique sections with plots for people from specific neighborhoods. Most gardens charge a small fee which goes to maintenance costs and to cover water use. If someone is temporarily unable to maintain their plot (due to health, vacation, etc.) they should contact the garden board so another gardener can be asked to care for it (Wujec & Rooney, 2012).

Planting methods

Discuss the type of growing that will and will not be allowed in the garden such as organic or limiting use of certain pesticides and herbicides. Gardens may create a list of acceptable and prohibited plants for the garden. For example a garden may place a height limit on plants to avoid someone's plot from shading another plot. The installation of an onsite composting system is highly recommended. Rules around what may and may not be composted, how and when to turn the compost pile, type of composting method used, and use of compost in plots must be established (Goodall, 2010).

Other policies to establish

- Sharing tools and other items in the communal tool shed
- Pets and accompaniment of small children
- Alcohol and drugs
- Unwanted garden activities (Goodall, 2010)

5. *Welcoming new members*

Proper introduction to a garden is important for a community garden's success. A good way to get new members acquainted with a garden, including rules and policies, is to put together a welcome packet. This packet might include a description of the garden (including the history, ongoing programs, and management layout), gardening tips, a gardener agreement (detailing roles and responsibilities of gardeners), contact

information for garden management board, a liability release, and a photo release (Mickley-Doyle, 2015) (Goodall, 2010). After presenting a new member with the welcome packet, complete a proper induction with the following: a tour of the garden, an in-person conversation regarding garden rules and what facilities/services are available, and an outline of how they can contribute to decision making and be involved through events (Goodall, 2010).

Forming gardener mentorship program is a great way to pair up less experienced gardeners with more experienced ones. This encourages the formation of new relationships within the garden and allows new gardeners to feel more comfortable and willing to participate. They can go to their mentor with questions and issues that may arise in their plot. Keep in mind that the majority of interest for community garden plots may come from older women who have interest in gardening and more time to dedicate to it (Kato, 2015). Outreach specifically targeting other groups is necessary to recruit a diverse mix of people.

6. *Funding*

At the beginning of the planning process, create a list of potential funders for both short and long-term funding. Consider private and public funders. Applicable grants should also be noted at local, state, and federal levels. These lists will come in handy as budgets are formed and funding is needed down the road. As these sources are being identified, it is important to draft a preliminary budget of start up costs to get an idea of how much funding will be needed (Wujec & Rooney, 2012). A typical community garden can range in start-up price from a few thousand dollars to well over \$100,000 (Willson & Bantuelle, 2015)(Gorman, 2015). More information on budgets is included in the "Budgets and Funding" section, as well as a sample budget in the appendices.

7. *Programming ideas*

To keep the community engaged, the planning process should focus on the development of a select few realistic programs that can be implemented in the near future. The plan can list all ideal longer term programs, but should focus in on those that are most attainable. This means those that are relevantly inexpensive, easy to implement, and do not require a lot of resources. In general it's good for a garden to develop slowly, allowing capacity building to occur and more people to get involved (Kato, 2015). See the "Health Integration" section below for specific health programming ideas for the Lafitte Greenway.

INVOLVEMENT OF COMMUNITY

1. *Importance of community involvement*

The community should be involved in all planning aspects of the gardens. The American Community Gardening Association states that "community gardening is most successful and long lasting when the people affected by the garden have a role in leading the

development of the garden" (Denver Urban Gardens, 2012). Consider the following ideas.

- Make sure everyone knows the gardens will not happen overnight. They will require a lot of work and continued participation (Goodall, 2010).
- The process should also be fun for the community, providing enjoyment through participation. Celebrate every success along the way, especially the little ones (Goodall, 2010).
- Use food from the garden and other local food to help celebrate. Bring partners to the table.
- Let the gardeners build as much of the garden as possible to build ownership and save on build-out costs.

2. *Asset mapping*

This approach should be used to identify what the community already has, its strengths, and what community members think they need. The following should be identified: available resources, services, skills, expertise of people and organizations in the area, and any available financial or technical support. A good way to begin this process is for the community to identify what the garden needs to be successful. Do they have what they need to do these things? Create a physical map of the community, highlighting the location of existing assets (Denver Urban Gardens, 2012).

3. *Community outreach*

In order to reach all members of the community, use a variety of mediums for outreach and contact a wide variety of community groups. Below are some examples, along with event and other outreach ideas.

Mediums for outreach - email, website promotion, Facebook, Twitter, Instagram, other social media platforms, personal phone calls, flyering community centers/businesses/homes, word of mouth, partner organization promotion through their channels, and holding meetings at accessible central locations (Wujec & Rooney, 2012).

Groups for outreach - surrounding residents (members of resident associations), community centers, environmental groups, service groups, church groups, gardening clubs/associations, local growers and producers, schools, city government, and other local community organizations (Goodall, 2010).

Event and other outreach ideas - open house garden day, community events held at garden ("green" movie nights, fundraisers, etc.), artwork opportunities for youth to

contribute to garden (i.e. contest to paint tool shed), community trainings or workshop days, space for other organizations to rent out for outdoor meeting/classes (also a possible source of supporting income), garden mailing list or monthly newsletter (including garden updates, what's growing in the garden, how to get involved, events, etc.), and monthly volunteer days for community to get involved (Goodall, 2010)(Barone, 2015).

SPECIFICS ON THREE MODELS

1. Teaching garden

Although this garden should be for community members of all ages, the following is advice specific for inclusion of children. Work with administration and teachers at nearby schools, and community partners to integrate the garden into existing programming. This programming might be Farm to School, agriculture lessons in the classroom, field trips to the gardens, or physical activity/nutrition programs. To get school board support, present at a board meeting with a sample program activity (i.e. taste tests). Updates for this garden could be included in school newsletters. Choose plants that bring beneficial insects and microorganisms to the garden for demonstration purposes, as well as health of the garden. Plant a wide variety of plants that can be tasted, easily used in dishes, are well liked by children, and will grow well together (Vermont Community Garden Network). Provide training for volunteers that will lead the classes, and employ a staff member to oversee development of curriculum and implementation.

2. Small urban farm

Urban farming can take many forms, including traditional ground plots, vertical farming, rooftop farming, and hydroponics. Additionally there are key differences between an urban for-profit farm and a traditional community garden. Since the former is a business, there are additional considerations, especially when the farm will host a number of small growers, each with individual opinions on growing. (Urban and Regional Planning Capstone Project, 2009).

The following is an excerpt for *Partnership for Sustainable Communities*, providing a list of considerations and advice for beginning an urban farm:

Organization and Management:

What will be the legal structure of your organization (e.g., sole proprietorship, partnership, limited liability company, corporation, non-profit, cooperative)? How will the business management be organized? Will there be a single farm manager to oversee all business operations or multiple

managers to oversee various business segments (e.g., marketing, operations, finance, human resources)? Where a multiple manager structure is anticipated, a simple organization chart may be useful to explain the organization. Who will be the principal or key managers who will run the business? What unique skills do they bring to the business and what will be their duties and responsibilities? Will there be an overseeing board or board of directors? What will be the composition of such a board and what, if any, role will members of the board take in the business? How will the principals, key managers, or board members be compensated? Are there any administrative expenses associated with the management or oversight of this business?

Marketing:

Defining a strategy for marketing and sales is the most important part of your business plan. The development of your marketing strategy will require an understanding of the market, including the demand for your product, the potential customers, and the potential competitors.

Operating Strategy:

Crop Management - Crop management for a farm involves maximizing the food crops that can be produced on a piece of land to meet the objectives of the marketing strategy, in terms of the type, amount, and quality of crops that are to be produced. This involves an understanding of both the approach that will be used to produce the crops and the schedule for planting and harvesting the crops. Discuss your approach to crop production including the specific method to be used such as vertical gardens, raised beds, surface planting, hydroponics, aquaponics, cold houses, or green houses.

Size and Capacity - Discuss the estimate for the amount of crops that can be repeatedly produced (e.g., pounds of produce per month for each market segment and crop type) given the crop management approach, property size, and available resources. The output should be estimated for the first five years of operation. You may also want to estimate a high and low case output for purposes of evaluating the range of potential output against the objectives of the business strategy. These output projections should be consistent with your plans for the growth of the business. Describe your growth plans.

Physical Resource Needs - Physical resources include land, buildings, and equipment necessary to produce and market your crops to meet the objectives of your business strategy. Discuss your physical resource needs and how they will be acquired. Describe the environmental factors related to the resources that will be needed to run the farm, such as water, electricity, and the impacts the farm may have on the environment (e.g., waste generation and disposal).

Human Resource Needs - Describe the manpower needed to operate the farm. This should include management as well as farm labor. Estimates of the number and types of workers needed can be made by identifying the specific tasks that will be required on a daily basis on the farm, including administrative and management responsibilities, and estimating the number of hours per month for each task. These tasks can be grouped by skill or experience and the total number of hours for each group estimated. As an example, tasks can be grouped into marketing, operating, administrative, and finance.

Regulation and policy - Operating a farm business will require a number of state or local zoning, permitting, licensing, and other regulatory issues be addressed. These regulatory requirements could have a significant

impact on your production and operating plans, as well as on start-up costs. To minimize the impacts and properly plan production activities, identify the types of permits, licenses, or regulations and associated fees required to start up and conduct the business. Describe the political or legal factors that will influence or limit your activities. Your business must operate within governmental and regulatory requirements, such as zoning, planning and building requirements, waste management requirements, and sales and other tax requirements. (Partnership for Sustainable Communities, 2011)

III. MAINTENANCE

PHYSICAL MAINTENANCE

1. *Cost*

Although start-up costs far exceed maintenance costs, a yearly budget must include annual expenses. The two largest of these costs are generally water and soil amendments, although depending on the amount of garden programming, personnel costs might exceed the former. Other yearly maintenance costs include: insurance, potting soil, mulch, seeds and plants, garden supplies, and the printing of educational materials (Barone, 2015)(Willson & Bantuelle, 2015)(Mickley-Doyle, 2015)(Denver Urban Gardens, 2012). See appendices and the following "Budgets and Funding" section for more information.

2. *Tips for maintenance*

From the beginning, choose low-maintenance materials for the garden (i.e. crushed gravel instead of mulch). Landscape architects and master gardeners are good points of contact to help determine the best options. Additionally choose low-maintenance plants for common areas and those that will help rebuild the soil.

Be clear with garden members from the beginning about plot upkeep so you do not end up with an overgrown garden. Not only does a garden look unpleasing to the community, but it will require significant work to restore it. Keep fruit trees and shrubs pruned. A management subcommittee can oversee this work. Garden members can be assigned to various general upkeep tasks and rotate between positions. Plot should be kept free of weeds, spent plants, debris, and trash. In the fall, gardeners can turn compost and organic material into soil in their plots. This can then be covered with a layer of mulch to keep the soil temperature regulated and maintain a high moisture level over the winter. Any perennials must also appear well kept (Denver Urban Gardens, 2012).

Think about how the garden will be maintained over the summer. If it remains open, be prepared to deal with more insects and much less plant growth. Due to the Southern heat, gardeners will be less active and engaged. If you wish to close the garden, create a plan to use cover crops, lay wooden boards over top plots, or some other method to allow the soil to sit still for several months.

As mentioned in the planning section, there should be rules established for violations of the garden agreement and failing to be a responsible gardener. Be sure the management team stands by these rules and implements them every time. Creating a violation warning system is a good way to let gardeners know you are serious, without being too harsh. Reach out to members to find out why the violation occurred in the

first place. Were they unsure of the rules? Do they need assistance in the garden to complete the task (Goodall, 2010)?

MAJOR ISSUES

1. Lack of communication

One of the biggest issues faced by organizations is poor communication. To keep gardeners on the same page, establish a good communication system. This can be an email list, a Google group, a Facebook page, a newsletter, a garden website or blog, etc. Be sure you are reaching everyone involved through your chosen method of communication. It's advantageous to choose multiple communication forms, keeping in mind those without Internet access. In addition to getting the word out about events, you will want a more private form of communication to relay things such as meeting agendas, decision made, and violations of garden rules. These internal issues are not relevant to the entire community(Barone, 2015)(Kato, 2015).

2. Conflict

Any garden will naturally have some conflict between members. The key is to resolve this conflict before it erupts into a larger problem. Establish a process or method to handle conflict that arises. Try to allow the gardeners to work it out amongst themselves at first. If the problem persists, bring it to the garden board. Here the board can walk through the established process for conflict resolution. Get at the root of the problem and address it to avoid future conflict down the line. Address the problem as soon as it arises, but also allow necessary "breathing time" for heated situations. The board should meet with those involved individually, to hear all sides of the story and propose resolutions. Ideally, through proper communication, nurturing of gardener relationships, and encouraging positive attitudes and behaviors, conflict can be avoided altogether (Barone, 2015)(Kato, 2015).

3. Negative behavior and attitudes

To avoid negative behavioral conduct, a statement such as the following can be incorporated into garden policies:

Gardeners...will keep garden free of discrimination, harassment, hate activity based on age, ancestry, citizenship, creed, color, disability, ethnic origin, family status, gender identity, level of literacy, marital status, place of origin, membership in union or staff association, political affiliation, race, receipt of public assistance, record of offences, sexual orientation, or any other personal characteristics. (Wujec & Rooney, 2012)

4. *Gentrification*

This issue is especially relevant in the New Orleans environment. Leaders of the garden must ensure that as the gardens grow, those in the surrounding communities can still participate. There should be a system in place to avoid pricing these residents out. One way to keep the garden affordable is to keep the member fee low, if there is one at all. The low fee for the traditional community gardens can be offset by charging the small growers in the urban farm a fee for leasing their plot of land (Kato, 2015).

5. *Other reoccurring issues*

Access to material, training and educating gardeners, getting ongoing funding, and working with other organizations (Lawson & Drake, 2012).

KEYS TO SUCCESS

A successful community garden has support from not only the community and those directly involved, but also from local organizations and the city government. Support can come in the form of volunteer time, money, or advocacy. A garden is also successful when:

- The staff has maintained commitment to the community gardens over time (Miranda, Harper, & Pohl-Kosbau, 2009).
- Gardeners form a connection with the garden location, and specifically the soil in which they grow. They also form an appreciation for the work required to maintain a garden and grow food (Miranda, Harper, & Pohl-Kosbau, 2009).
- Gardens serve a larger purpose, addressing social and environmental justice issues. These multi-purpose spaces provide opportunities for physical activity to community members and improve local food systems (Miranda, Harper, & Pohl-Kosbau, 2009).
- Programs are formed with a stable foundation, allowing continued servicing to community (Miranda, Harper, & Pohl-Kosbau, 2009).

1. *Continued input*

A community garden should be expressive of the wants and needs of a community. In the beginning check in with members monthly (but eventually this can be yearly) to get feedback on changes they would like to see and what needs improvement. Members can always provide feedback at monthly garden meetings, however it is good to set aside a specific time dedicated for this purpose (Redwood City, 2012).

When starting a garden conducting a "skills audit" is often part of asset mapping, however go back to the community every once in a while to refresh this skills list. Call

upon the community for help before turning to outside help. Always strive to build self-sufficiency within a garden (Redwood City, 2012).

2. *Sustained motivation*

One of the biggest issues a garden faces is sustained motivation and interest among its members. Over time people tend to lose interest, especially if they do not feel connected to the garden. Holding regular meetings, programs, and events can help. Again it cannot be stated enough that gardeners must be included in the decision making process and be able to voice their concerns. Create a sense of ownership and get the community invested from the start (Redwood City, 2012). Having the gardens located close to residents is important so they see it every day and want to know what's happening. Proximity is also important to limit travel time for gardeners, especially those with limited mobility (Kato, 2015).

Holding events, class, trainings, and other programs at the garden is key to ensuring sustainability. These offerings should be for people of all ages and experience levels. Classes can target certain groups of people. However, the garden should host a wide variety of programs. A good way to include children (and ultimately reach their families as well) is to hold nutrition education and gardening basics classes.

Example programs include: Composter Training Program, Master Community Gardener Training Program, Free Seeds and Transplants Program, Growing Organically, Helping Kids Get Healthy Educator Workshops, and Public Walking Tours (Denver Urban Gardens, 2012). These events benefit existing gardeners and create buy-in from the public through engagement.

Other events: Movie nights (health documentaries, "green" movies), open mic nights, potlucks, art and craft fairs, food markets, guest speakers, public walking tours, and promotion of the garden through public announcements (i.e. newspapers, TV, radio, local publications)(Barone, 2015)(Denver Urban Gardens, 2012).

See the "Partnering" section for a list of guest speakers to invite to the garden.

3. *Form subcommittees*

As the garden expands, new subcommittees should be formed to handle new garden components. Such components might be new programs, garden members, or paid staff. Below are some example subcommittees with detailed roles:

- Community Building Committee - Committee provides outreach and community building activities for the community garden. Activities could be a formal donation program, a garden newsletter, potlucks, other social events, etc. (Denver Urban Gardens, 2012). These events target non-gardening neighborhood residents to engage more people.

- Maintenance Committee - Committee ensures upkeep of physical infrastructure, including smaller working groups for improvement projects, composting, tools and storage shed, maintaining the perimeter beds, the garden irrigation system, etc. (Denver Urban Gardens, 2012).
- Garden Mentoring Committee - This committee offers training and advice, coordinates workshops, and educates community gardeners within the community garden. This could include specialty trainings on organic gardening, water wise gardening, composting, mediating garden disputes, youth education, etc. (Denver Urban Gardens, 2012).

4. *Youth in the garden*

Getting neighborhood youth involved in and excited about a community garden ensures a next generation of growers. Work with local schools to create new, and expand upon existing, programs bringing children into the garden. Encourage youth to try new foods from the garden, developing their taste for healthy food. Involved parents can double the impact a garden can have on children. When children witness a parent enjoying and spending time doing a certain activity, they are more likely to give it a chance and remain enthused. Older youth can be involved through summer internships, allowing them to take part in gardening and provide a healthy activity to occupy their time off. Regardless of time of year or formality of a program, any involvement can help develop life and job skills that under-privileged youth often lack. These skills prepare them for the workforce and may even inspire some to become growers professionally (Redwood City, 2012).

IV. MONITORING AND EVALUATION

1. *Why monitor and evaluate?*

It is extremely important to keep track of progress the Gardens are making for a number of reasons. It is important to ensure that the garden is within budget, programs are being implemented as planned, resources are being efficiently used, target groups are being involved, and progress is being made toward goals. Evaluation is important to show value of the gardens to the city, funders, communities, policy makers, partner organizations, and more. This section will include ways to monitor and evaluate success of the gardens.

2. *Monitoring:*

The United Nations Development Programme defines monitoring as:

...the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. Contrary to many definitions that treat monitoring as merely reviewing progress made in implementing actions or activities, the definition used...focuses on reviewing progress against achieving goals. In other words...not only concerned with asking “Are we taking the actions we said we would take?” but also “Are we making progress on achieving the results that we said we wanted to achieve?”...In the broader approach, monitoring also involves tracking strategies and actions being taken by partners and non-partners, and figuring out what new strategies and actions need to be taken to ensure progress towards the most important results.

(United Nations Development Programme, 2008)

Once the gardens are up and running, monitoring should begin. Monitoring is an ongoing process of collecting information, not something to be done once and forgotten about. The data collected should be evaluated and the findings put to use. There is no point in collecting vast amounts of data and storing it away never to be looked at again. The following sub-section on evaluation will provide a framework and ideas for using this data.

3. *Evaluating:*

The United Nations Development Programme defines evaluation as:

...a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision-making. Evaluations, like monitoring, can apply to many things, including an activity, project, programme, strategy, policy, topic, theme, sector, organization. The key distinction between the two is that evaluations are done independently to provide managers and staff with an objective assessment of whether or not they are on track. They are also more rigorous in their procedures, design and methodology, and generally involve more extensive analysis. (United Nations Development Programme, 2008)

While evaluating, consider the following questions:

- "How much do we do?
- How well do we do it?
- Is anyone better off?" (Vermont Community Garden Network, 2013)

"RE-AIM" is a commonly used evaluation framework, which is broken into five components to measure different elements of success. These components are: reach, effectiveness, adoption, implementation, and maintenance. Each one looks at a program through a slightly different lens. Together they create a full picture illustrating how your project is performing (Bowers, 2012).

Dimension	Definition	Components
<i>Reach</i>	Number, proportion and representativeness of participation	1. target population, methods to reach people (communication for reaching people) 2. community garden characteristics (barriers, transportation/distance)
<i>Effectiveness</i>	Changes in primary outcomes, quality of life, and potential negative effects	1. increased garden and nutrition knowledge 2. increased availability of fresh produce 3. increased physical activity 4. positive change in eating habits 5. quality of life measurements (community togetherness, enjoyment)
<i>Adoption</i>	Number, proportion, and representativeness of people	1. characteristics of organization (accessible/visible location, community

	who adopt desired behavior	cohesion, fear of high crime area, rural and urban settings, diverse/poverty) 2. expertise of CG leader (communication with CG participants, ability to teach, dedication, time available, previous gardening knowledge)
<i>Implementation</i>	Degree to which intervention is delivered as intended and the implementation cost	1. resources (educational program and events, build partnerships, planting and growing resources, handbook for CG guidelines, involvement of CG experts) 2. frequency of intervention (inaugural season issues, meetings) 3. protocol delivered as intended (cost: grants, budget issues, donations)
<i>Maintenance</i>	Extent to which an intervention and its effects are sustained over time	1. individual level (retention, anticipated outcomes for harvest and quality of life, communication for individual involvement, time involved) 2. organizational level (increase # of volunteers/workforce, financial resources, participant ownership)

(Bowers, 2012)

Additional ways to track progress and gather useful information, from the Vermont Community Garden Network and author Bowers, are listed below:

- Weighing produce grown by participants
- Weighing produce grown for donation
- Garden journals
 - individual journals, or a communal one kept in the tool shed, for gardeners to note what they are growing, how they grew it, when they harvest, and any diseases or pests they encounter
 - note what they saw, thought, felt, and learned in the gardens
- Photo journals
 - pictures of plants grown, gardeners working, attendees at events, etc.
- Class and participation log
 - create a log to note where and how often classes are held
 - have participants sign-in at each class or workshop
 - gather information on their neighborhood, contact information, and how long they've been involved in the garden
- Taste tests
 - program participants vote on their favorite dish or food tried, and comment on flavor/texture/etc.
- Written surveys

- after every class, at the beginning and end of growing seasons, etc.
- ask participants to complete a brief survey to assess knowledge retained, effective implementation, and gather feedback
- Verbal interviews
 - ask specific questions to get gardeners to share about their experiences and voice ideas and concerns
- Key informant interviews
 - interview garden leaders and management team
- Focus groups
 - hold these with garden participants to get ideas of trends and themes felt by the garden community
- Observations
 - garden manager should observe what's happening in the gardens on a daily basis
 - note how many gardeners are actively gardening, when they're present, and for how long
- Health outcomes
 - BMI reduction
 - increase in food security
 - increase in fresh fruit and vegetable consumption (obtained through diet recalls and food frequency questionnaires)
 - increase in physical activity (obtained through logs or surveys)

(Vermont Community Garden Network, 2013)(Bowers, 2012)

Evaluation methods should be tailored to measure the final goals and objectives of the garden. The Lafitte Greenway Gardens could partner with local Public Health Universities for assistance in crafting appropriate methods. The Tulane Prevention Research Center and the Louisiana Public Health Institute might be good points of contact. Sample evaluation toolkits and surveys are included in the resource section as a starting point.

V. BUDGETS AND FUNDING

As the Action Planning Committee moves forward with the garden, the tables provided in this section can be revised and filled in. The budget outline was created based on information gathered from the ReFresh Community Farm, Hopatcong Community Garden, Denver Urban Gardens, Southbound Gardens, Parkway Partners, and Grow Dat Youth Farm. See appendix section for sample budget.

START UP COSTS

Starting a garden is not cheap, costing anywhere from \$2,500 to well above \$100,000 (University of California Cooperative Extension, 2015)(Mickley-Doyle, 2015)(Gorman, 2015). An average community garden costs about \$25,000 (Burley, 2015). Before beginning the search for funding sources, develop a rough budget for the project. Create a list of items that will be needed, or the community wants to include, and ask around for price quotes. Determine the approximate amount of money needed to bring the garden to life (University of California Cooperative Extension, 2015).

The most expensive items (in descending order): soil, bed building materials, mulch, irrigation (might be much more depending on water source available and type of irrigation system chosen for the garden), trees (to fill out the space and possibly provide fruit). Local soil companies include Sugarland, Eco-urban, and Laughing Buddha. Even though soil will be a big expense, it is key not to skip on quality. Compensate for higher prices by buying in bulk (Willson & Bantuelle, 2015)(Gorman, 2015).

1. *Fixed*

Every community garden is unique in size, culture, garden features, and more. Despite this, there are several fixed expenses for beginning a garden. The following are a list of items to consider for the Lafitte Greenway Gardens. The amount and type of construction tools/equipment purchased will depend on how much construction the gardeners decide to take on themselves.

Fixed Expenses

<i>Item</i>	<i>Amount needed</i>	<i>Approximate price</i>	<i>Potential resource in New Orleans</i>
Construction Tools & Equipment (hammers, saws, blades, extension cords, etc.)		\$1,000	Home Depot, Lowe's, local gardening centers, renting equipment
Garden Tools & Equipment (tiller, rakes, shovels, hoes, seeder, pitch forks, etc.)		\$1,000	Home Depot, Lowe's, local gardening centers, renting equipment
Signage (entrance sign, plant sign labels, instruction sign for public harvesting outside fence, etc.)		\$400	
Compost system (bins, worms, etc.)		\$600	NOLA Green Roots
Supplies (wheel barrow, garden cart, etc.)			Home Depot, Lowe's, local gardening centers
Community features (wood shade arbor, benches, picnic tables, etc.)		\$2,150	
Tool shed (Morgan Tool sheds or shipping container)		\$1,600	Home Depot, Lowe's, local gardening centers
Rain catchment system		\$4,000	Home Depot, Lowe's, local gardening centers, gardeners build to save costs
Fencing and gates		\$2,400-12,000	Home Depot, Lowe's, local gardening centers
Personnel (program director, garden coordinator, etc)			
Total fixed start-up expenses			

Additional fixed start-up items to consider:

- Plant processing: scissors, washing/prep station, seeding tables, produce crates, produce scale, cold storage.
- Safety: eye washing station
- Other: drinking fountains, restroom with plumbing, trellis and other vertical growing materials, ornamental trees

2. *Variable*

Most of these costs will be determined by the size of the garden.

Variable Expenses

<i>Item</i>	<i>Amount needed</i>	<i>Approximate price</i>	<i>Potential resource in New Orleans</i>
Soil		\$4,000	Sugarland and Eco-urban
Lumber boards (for plot construction)		\$90,000	
Weed barrier (wood chips, landscape fabric)		\$1,000	Wood chips from Arborist Companies, landscape fabric from BWI
Potting soil		\$100	NOLA Green Roots, other local gardening centers
Pots and potting trays		\$550	NOLA Green Roots, other local gardening centers
Seeds and plants		\$200	Parkway Partners
Irrigation system		\$1,500-3,650	
Pathway materials (crushed gravel or limestone is cheap, crushed concrete is free)		\$2,040	
Educational materials		\$500	
Total variable start-up costs			

ONGOING COSTS

Although the bulk of the expense is spend upfront building the garden, there are some yearly expenses.

1. Fixed

Fixed Expenses

<i>Item</i>	<i>Amount needed</i>	<i>Approximate price</i>	<i>Potential resource in New Orleans</i>
Personnel (program director, garden coordinator, etc)			
Insurance		\$800.00	
Total fixed ongoing costs			

2. Variable

The biggest yearly variable maintenance costs are water and soil amendments. As with any budget, funding should be set aside for unexpected costs. For instance there may be water issues (hose breaks, irrigation line breaks), beds that need repair (damaged materials), and periodic re-mulching (Barone, 2015)(Willson & Bantuelle, 2015).

Variable Expenses

<i>Item</i>	<i>Amount needed</i>	<i>Approximate price</i>	<i>Potential resource in New Orleans</i>
Water		\$480-1150	
Soil amendments (neem oil, bone meal, fertilizer, etc.)		\$220	NOLA Green Roots, other local gardening centers
Potting soil		\$100	NOLA Green Roots, other local gardening centers
Mulch			Wood chips from Arborist companies
Pathway material (crushed stones replaced every 2-3 years)			Pontchartrain Materials
Seeds and plants		\$200	Parkway Partners
Garden supplies (hoses, nozzles, etc.)		\$300	Home Depot, Lowes, local gardening centers
Educational materials		\$500	
Unexpected costs			
Total variable ongoing costs			

FUNDING

1. Member dues

If the garden charges a fee for having a plot, the dues should be kept low to allow all community members to participate. Yearly dues typically cover water expenses and minor garden repairs. To offset low dues, the garden could ask farmers using the small growers' garden to give 10% of sales to help cover ongoing expenses. Before enacting such a policy, determine how large a plot of land must be for a farmer/small grower to make a profit. Collecting a percentage of their sales would essentially be charging them for leasing the land (Kato, 2015).

2. Grants

City Funding

Some community gardens can be incorporated into the city which they reside. When this is the case, they should apply for local grants over federal ones. The city may even allot a portion of its yearly budget to sustaining these gardens. The funding will come from a specific city department, such as the Parks and Recreation Department (or Parks and Parkways Department in the case of New Orleans) (Niemi, 2015).

The network of community gardens in Portland Oregon is run through the City with around 70% of garden costs subsidized by the city, and the remaining 30% coming from gardener fees. In the case of Portland, when the Parks Department would like to start a new garden, they make a request to the city for funding. Because attaining outside funding for ongoing maintenance is harder than finding start-up funding, when a new garden budget request is submitted to the city it always includes a portion for maintenance. Being housed within a city department is beneficial because the city understands the need to maintain the appearance and structure of buildings, gardens, projects, etc. The City of Portland also has a policy that charges developers a fee for new construction. Money collected from this fee goes to develop new parks. The rationale here is that when more homes are built, more people move into an area, and increased pressure is placed on existing parks. (Niemi, 2015)

Incorporation into a city department might not be an option for the Lafitte Greenway Gardens at the moment, however is something to consider for the future. Regardless, there are several local non-government funding opportunities within New Orleans for which the gardens might be applicable. While searching for local funding keep in mind that there currently may be less private funding available. This is a result of both the economic downturn and the significant time that has elapsed since Katrina (Kato, 2015).

Federal Grants

There are federal funding sources available for community gardening. While this funding can be competitive due to the prevalence of urban gardens, the Lafitte Greenway is strongly positioned to be awarded due to the Local Foods Local Places program (Mickley-Doyle, 2015). Because community gardens affect a wide variety of issues (food security, nutrition, physical activity, storm water management, habitat restoration, etc.), organizations can apply for a wide variety of grants. The key is framing the work in a way to fit the funding available (Niemi, 2015). For a list and more information on federal funding options see the Resource section and LFLP Appendix E in the Appendix section of this report.

3. *Cash donations*

These can be from individuals, businesses, foundations, or other organizations. Donations will typically be given for initial construction of gardens, and will be harder to attain for ongoing garden expenses (Redwood City, 2012). It might be difficult to get enough donations to fund a significant portion of the gardens, because donations are generally made in smaller amounts of money (Mickley-Doyle, 2015). Local suggestions include: Lowes, Home Depot, Seeds for Change, NeighborWorks, the Green Project, Habitat for Humanity, and City resources.

4. *In-kind donations*

Look for in-kind donation of services, materials, and equipment. Speak with local businesses, foundations, and philanthropists (Denver Urban Gardens, 2012). In-kind donations to consider: coffee grounds and food scraps for compost, lumber, fencing material, plot material, wood chips (from Arborist companies), plants, seeds (Willson & Bantuelle, 2015). Parkway Partners has a yearly seed give-away, with which the garden could get involved. The garden could also host a seed swap for members to exchange seeds.

5. *Requesting a portion of the city's budget*

Some community gardens have had success with this, especially those that are run by the city or are on city land. When the city funds part of a garden, they become more invested in the project and want to see it be successful (Niemi, 2015).

6. *People-power*

This means community volunteering their time, services, special skills, and more to save on costs. As mentioned throughout previous sections, it is recommended to require that garden members complete a number of volunteer hours in a season. This will cut down on maintenance costs as well. Hosting "Volunteer Days", where groups of gardeners come out, will increase attendance and make the work more fun. Consider partnering with businesses and organizations that have employee days of service. For example Tulane could place the Lafitte Greenway Gardens on their list of volunteer locations for their bi-annual "Day of Service" event. Volunteers could assist in initial construction by pouring soil or creating beds (Kato, 2015).

7. *Fundraisers*

Ideas include: hosting a Zumba-thon, walks, runs, bike races, garden or harvest festivals (gardeners sell seeds, produce, crafts that they make/grow or are donated), plant sales, partnering with local businesses or restaurants where a percentage of sales for a day go to the garden, yard sales, car washes, bake sales, hosting a local musician, art exhibits, creating and selling a garden cookbook (members contribute healthy recipes), selling bricks, hosting workshops for a fee, Mardi Gras bead collection for recycling, clothing drive, and a gumbo cook-off (with an emphasis on healthy recipes) (University of California Cooperative Extension, 2015)(Bond, 2015)(Denver Urban Gardens, 2012)(Kato, 2015)(Barone, 2015).

KEYS TO FINANCIAL SUCCESS

1. *Stable foundation*

Leslie Pohl-Kosbau, of "Friends of Portland Community Gardens", suggests the following for creating a stable foundation from the beginning:

I would suggest an on-going sponsorship by an organization or business, if the municipality doesn't want to do it. Some Food Co-ops have started and maintained community gardens. Neighborhood organizations may do it, but the beauty of having a city manage the garden, is that the operations should be transparent and the plots should be fairly open to everyone who abides by the guidelines. (Pohl-Kosbau, 2015)

2. *Avoiding "path dependency"*

Glasgow's Community Gardens explain path dependency as the following:

Another funding related challenge stems from what is termed 'path dependency', whereby past events and developments both shape and constrain current activities. In this case, path dependency refers to a situation whereby community groups become structured by a landscape of funding geared towards addressing a particular problem – for example, reducing carbon emissions – and “only exists towards impacting it” (Aiken 2014). This can and does remove agency from community garden organizations as they become constrained by the conditions of a particular funding agreement rather than setting their own agendas and strategies. (Crossman, Shaw, Cumbers, & McMaster)

To avoid this, continue to apply for multiple paths of funding for different garden components. Revisit the mission and vision periodically to ensure funds applied for align with the organization's existing purpose.

VI. PARTNERING

WHAT IS PARTNERING?

Partnering is working with and engaging organizations in communities surrounding and including the one in which you work. Offer partners opportunities to participate in educational classes and programs, and share human services. Once a partnership has been established, recruit volunteers from their organization for construction and maintenance of the gardens. Understand what resources they have that might benefit you, and vice versa (Redwood City, 2012).

It's a good idea to host a yearly meeting or gathering for all partners to come together at the gardens. This will also give attendees a chance to network with each other. Decide what the city's role will be in the process. How involved will they be as a partner? Will they be providing anything (resources, skills, services, etc.)? For all partnerships, lay out exactly what is expected from them, what the partnership means, and why it benefits them. It's also important to have good communication processes in place (Goodall, 2010).

TYPES OF PARTNERS

1. *Service-based* - i.e. Housing Authority
2. *Faith-based* - i.e. ministries, churches, missions
3. *Health-based* - i.e. local public health universities, local Health Department, food access organizations (food banks), food policy councils (FPAC), regional nutritionists, other health authorities
4. *Youth and Education-based* - i.e. libraries, schools, boys and girls clubs, NOLA Youth Corps, Louisiana Green Corps, AmeriCorps, Teach for America, local schools
5. *Environmental & Agriculture-based* - i.e. horticultural organizations, local farms, other community gardens, farmers markets, grocery stores, Ag Center, NOLA Composting Network, other environmental organizations (Sierra Club)
6. *Economy-based* - i.e. local businesses (hardware stores, gardening centers, nurseries), development and job training programs (Goodwill Industries)
7. *Government-based* - i.e. NOLA city government, LFLP federal partners, local Health Department, Parks and Parkways Department
8. *Other* - senior centers, neighborhood revitalization programs, crime prevention (NOPD), hospitals, rotary clubs (Redwood City, 2012)

POTENTIAL GUEST SPEAKERS

1. Local Farmers

- Fletcher Family Farm
- Two Acre Farms
- City Greens Farm
 - <http://eatcitygreens.com/>
- Good Food Farm
 - Cory Ashby - cory.ashby@gmail.com
- Mr. Okra
- Southbound Gardens
 - <http://www.southboundgardens.com/>
 - Jordan Bantuelle or Ian Willson - southboundgardens@gmail.com
- Grow Dat Youth Farm
 - <http://growdatyouthfarm.org/>
 - Leo Gorman (Farm Manager) - leogorman1@gmail.com
 - Leo has a B.A. in Anthropology and Latin American Studies and a Master's in History. His work experience involves educating on environmental impacts of free trade policy, co-authoring articles and book chapters on indigenous rights, popular education and immigration, running market gardens at a High School, and interning on organic vegetable farms, He currently leads the farm at Grow Dat Youth Farm, combining interests of education, social justice and sustainable agriculture (Grow Dat Youth Farm, 2015).
- Hollygrove Market and Farm
 - <https://hollygrovemarket.com/>

2. Community gardens & garden services

- Sankofa CDC
 - <http://www.sankofanola.org/>
 - Jessica McNally (Lead Gardener) -Prior to her start at Sankofa, Jessica gained experience gardening around New Orleans, originally coming from

a background in community engagement and organizing. At Sankofa she works to build neighborhood gardens through sustainable practices (Sankofa CDC, 2015).

- Grace Williams (Gardens and Market Coordinator) - Having worked on topics of food, community, young people, and social justice in New Orleans, Grace now leads the Market at Sankofa. She also has experience in organic farming (Sankofa CDC, 2015).
- LSU Agricultural Center
 - Center main webpage -
https://www.lsuagcenter.com/en/administration/about_us/extension/
 - Master Gardener Program -
http://www.lsuagcenter.com/en/lawn_garden/master_gardener/
- NOLA Green Roots
 - <http://nolagreenroots.com/>
- The Composting Network
 - <http://compostingnetwork.com/site/>

3. School gardens

- Edible Schoolyard
 - <http://www.esynola.org/>
 - Rahn Broady (Lead Garden Educator Ashe) - rahn@esynola.org
 - Nicole Gelb (Lead Garden Educator Dibert at Phillis Wheatley) - nicole@esynola.org
 - Amy Nau Zellweger (Lead Garden Educator Langston Hughes) - amy@esynola.org
 - Zach O'Donnell (Lead Garden Educator Green) - zach@esynola.org
- KIPP McDonogh 15 School
 - <http://kippmcdonogh15.org/>
- Sankofa CDC
 - See above gardener contacts (Gardens present at ARISE Academy)

4. Non-profits

- Grow Dat Youth Farm
 - <http://growdatyouthfarm.org/>
 - Johanna Gilligan (Executive Director) - johanna@growdatyouthfarm.org
 - Johanna has been working on food education for over a decade, starting at the Brooklyn Botanic Garden teaching students about plant science. In New Orleans she has worked with the New Orleans Food and Farm Network as their Educational Programs Manager, the non-profit Rethink focusing on school food reform, and has been an Urban Innovation Challenge Fellow at Tulane University, a finalist for Echoing Green, and a finalist for the Kellogg Foundation's Food and Society Fellowship. She currently works as the Executive Director of Grow Dat Youth Farm, which she founded with Tulane University in 2011 (Grow Dat Youth Farm, 2015).
- Broad Community Connections
 - <http://broadcommunityconnections.org/>
 - Jeffrey Schwarz (Executive Director)
 - Jeffrey has been working on community economic development in New Orleans for eight years, focusing on finance, small business development, and the link between community health and the built environment. He has a B.A. in Economics and History, and a Master's in City Planning. As part of his studies, he researched fresh food access in New Orleans both before and after Katrina. Most recently he founded and continues to work at Broad Community Connections. Within the City he serves on several boards, including the Regional Planning Commission, Transport for NOLA, and Friends of Lafitte Greenway (Broad Community Connections, 2015).
- SPROUT NOLA
 - Emily Mickley-Doyle - ejeberha@gmail.com

Emily came to New Orleans in 2005, gaining a B.A. in Sociology. She has worked in community health and HIV care, completed an urban agriculture apprenticeship, and co-founded SPROUT NOLA. Emily is a member of the ReFresh NOLA Coalition and serves on both the Community Advisory Board for the Louisiana Clinical and Translational Science Center and the Orleans Parish Nutrition Advisory Board. She is also a Parkway Partners community gardener, a Louisiana Master Gardener, and a member of Friends of Lafitte Greenway, and New Orleans Food and Farm Network (NOFFN) (SPROUT NOLA, 2015).

- Matt Glassman - sproutnola@yahoo.com
- Matt is a New Orleans native who holds a Bachelor's Degree in Clinical Laboratory Science. He got involved in food justice, completing an Urban Farming internship at Hollygrove Market and Farm and the Gathering Tree Community Garden. Partnering with Emily, they began growing in 2012 to sell at markets and became active members of NOFFN. Matt co-founded SPROUT NOLA, mentoring gardeners in the community and assisting in building backyard gardens. He currently sits on the ReFresh NOLA Committee of the ReFresh Project (SPROUT NOLA, 2015).
- Sankofa CDC
 - Rashida Ferdinand (Founder and Executive Director) - rashida@sankofanola.org
 - Rashida is a Ninth Ward native, and holds both a BFA and MFA. She founded Sankofa CDC in 2008 with community stakeholders to share resources amongst Ninth Ward residents. These resources those related to urban revitalization, youth enrichment and education, health and wellness, and economic development. Rashida graduated from the Goldman Sachs 10,000 Small Businesses program, and currently serves on the Audubon Commission, Tulane Prevention Research Center Advisory Committee, LSU AG Center Orleans Parish Advisory Council, and LSU and SU Ag Center Advisory Leadership Council (Sankofa, 2015).

- Parkway Partners
 - <http://parkwaypartnersnola.org/>
 - Susannah Burley (Program Director) - sburley@parkwaypartnersnola.org
 - Susannah is the Parkway Partners' Program Director, with a background in landscape architecture. She heads the Urban Gardens, Schoolyard Gardens, and ReLeaf programs of the organization (Parkway Partners, 2015).
- Our School at Blair Grocery
 - <http://schoolatblairgrocery.blogspot.com/>
 - Nat Turner - natturnernola@gmail.com
- Backyard Gardeners Network
 - <http://backyardgardenersnetwork.org/>
- Eat Local Challenge
 - <http://www.nolalocavore.org/>
 - Lee Stafford - lee@eatlocalneworleans.com
- Recirculating Farms Coalition
 - <http://www.recirculatingfarms.org/>
- Crescent City Farmers Market
 - <http://www.crescentcityfarmersmarket.org/>
 - Kate Parker - kate@marketumbrella.org

5. *Government & Universities*

- City Council Members
 - <http://nolacitycouncil.com/meet/meet.asp>
- Mayor
 - <http://www.nola.gov/mayor.aspx>
- Public Health Department
 - <http://www.nola.gov/health-department/>
- Fit NOLA
 - <http://www.nola.gov/health-department/fit-nola/>
- City Planning Commission

- <http://www.nola.gov/city-planning/>
- Sewerage and Water Board of New Orleans
 - <https://www.swbno.org/>
- Department of Agriculture
 - <http://www.ldaf.state.la.us/>
- Louisiana State University Public Health Department
 - <http://www.publichealth.lsuhsu.edu/>
- Tulane University Public Health Department
 - <http://www.sph.tulane.edu/>
- Tulane Prevention Research Center
 - <http://prc.tulane.edu/>
- Urban Waters Federal Partnership
 - <http://www.urbanwaters.gov/>

6. *Community members & others*

- Gary Granata (Slow Food New Orleans) - gary@slowfoodnola.com
Gary is the current chair of the Slow Food New Orleans chapter, and holds a PhD in Exercise Science and Sports Nutrition and Masters in Foods and Nutrition. He has personal interest in cooking and gardening, which he combines with his work at Slow Food. His goal is to challenge New Orleanians' beliefs and attitudes on food, physical activity and personal health (Slow Food New Orleans, 2015).
- Cyril Saulny (Historian)- cyrilbsaulny@aol.com
- Alfred Jackson (Historian) - alvin1943@gmail.com
- Local Dietitians
- Local Chefs
- Local experts in physical activity

VII. HEALTH INTEGRATION

RATIONALE

Glasgow's Community Gardens note the mounting evidence on the positive link between gardening and a wide range of improved health outcomes:

...'community gardens have been associated with increased physical activity and improved mental health'. Community gardens, they contend, 'represent a behaviour setting that has purpose and coherence, promotes social inclusion and gives rise to positive social and psychological processes that ultimately leads to good health' (ibid). A range of charities and other organisations working with vulnerable groups in Glasgow recognise the value of community gardens as therapeutic environments. (Crossman, Shaw, Cumbers, & McMaster)

In addition to these benefits from gardening, hosting health classes, programs, and incorporating health into the design of community gardens can further improve health outcomes. A garden should be designed to encompass various health components including: diet and nutrition, physical activity, and mental health. This section will provide some ideas for integrating effective health components into the Lafitte Greenway Gardens, and provide potential partnerships with existing NOLA organizations.

HEALTH COMPONENTS

1. *Signage*

- Calories burned through different gardening activities.
- Labels for what plants are growing and their health benefits
- How to harvest plants and cook them

2. *Tours*

- Walking and biking tours through and past the gardens highlighting what's being grown, native species, habitat restoration, etc.
- Walking club for garden members along the entire Greenway

3. *Classes*

- Cooking demos using traditional New Orleans recipes with a healthy twist
- Nutrition education classes (could have an element of New Orleans food culture built in)
- Fitness classes (boot camps, Zumba, step, etc.)
- Yoga, meditation, and stress reduction classes
- Horticulture therapy classes
- Gardening classes (ranging from basics to more experienced level classes)
- Canning and preserving classes (for gardeners to make the most of their produce and eat healthy year round) (Miranda, Harper, & Pohl-Kosbau, 2009)

4. Events

- Cook-offs (i.e. gumbo cook-off, etc)
- Health-focused monthly potlucks with gardeners
- Garden clean-up days (Barone, 2015)

5. Informational

- Recipe sharing (through online site or at monthly event)
- Cookbook creation (gardeners contribute their favorite healthy recipe, could be sold as fundraiser)
- Monthly garden newsletter with a health column or section. Might include a healthy recipe using in season ingredients (Barone, 2015).

PROGRAM PARTNERSHIPS

New Orleans is home to an incredible number of organizations implementing health programs on a daily basis. To efficiently use resources, funds, and time, it would be beneficial to partner with other organizations. Some possibilities are: Puentes, The ReFresh Project, Grow Dat Youth Farm, Liberty's Kitchen, and Cafe Reconcile. See the above Partnership section for a more detailed list.

VIII. FARMERS' COOPERATIVES & FOOD HUBS

Once the community gardens are up and running, the small urban farm might want to start expanding to increase their profits. Forming a farmers' cooperative is an option. The Greenway might even partner with or become a food hub of some kind. This section includes information on both farmers cooperative and food hubs.

FARMER ("AGRICULTURAL") COOPERATIVES

1. *What is a farmer co-op?*

The National Council of Farmer Cooperatives offers detailed information on what makes a farmer co-op:

Cooperatives are businesses owned and controlled by the people who use them. Cooperatives differ from other businesses because they are member owned and operate for the mutual benefit of members. Like other businesses, most cooperatives are incorporated under State law.

Farmer cooperatives exist for the mutual benefit of their farmer members with earnings returned on a patronage basis. For example, a farmer member who accounts for 10 percent of the volume of corn delivered to the cooperative would receive 10 percent of the net earnings derived from the handling, processing, marketing and sale of that corn or related products. Such patronage dividends help boost the income of farmers directly or by reducing the effective cost of the goods and services provided.

Farmer cooperatives also help contribute in another way to the economic well being of local communities, particularly in rural areas where they are an important source of jobs and payrolls - accounting for as many as 300,000 jobs and a total payroll of over \$8 billion.

Being farmer-owned and controlled, farmer cooperatives are governed by a board of directors elected by their farmer members - generally based on one member one vote rather than on the basis of shares or percent ownership as in other types of

businesses. This provides for a unique accountability. (National Council of Farmer Cooperatives, 2010)

The University of California Cooperative Extension explains that farmer cooperatives exist to some extent in all areas of the food industry and have been for over a hundred years. "Today, there are more than 3,000 agricultural cooperatives in the U.S., with 2.8 million memberships, a total net income of nearly \$1.2 billion and net business volume of more than \$96 billion" (University of California Cooperative Extension, 2015).

Cooperative principles:

The US Department of Agriculture includes three distinct principles for a cooperative, which are listed below:

- The User-Owned Principle: "The people who own and finance the cooperative are those who use the cooperative" (University of California Cooperative Extension, 2015).
- The User-Control Principle: "The people who control the cooperative are those who use the cooperative. They democratically elect a board of directors. The board sets the overall operating policies, approves the annual budget, oversees its operation, and distributes the benefits derived from use of the cooperative to members" (University of California Cooperative Extension, 2015).
- The User-Benefit Principle: "The cooperative's sole purpose is to provide and distribute benefits to its users on the basis of their use. While the goal of agricultural cooperatives is not to generate a return on investment, they, like all businesses, must cover costs and generate capital to cover expansion and unforeseen emergencies" (University of California Cooperative Extension, 2015).

What are the benefits?

Forming a cooperative gives farmers increased bargaining power, access to new markets, reduced costs, more chances for income, the ability to purchase products and service when needed, and improved risk management (National Council of Farmer Cooperatives, 2010).

2. How to start a co-op

The following guidelines for starting a co-op are quoted from the University of California Cooperative Extension:

- Core group meets to clarify need and the potential use of a cooperative as a solution

- Hold meeting of potential members to discuss forming a cooperative
- Select steering committee
- Conduct economic feasibility analysis
 - Survey potential feasibility analysis
 - Conduct market research and analysis
 - Prepare financial projections
- Hold meeting of potential members to report findings
- Prepare business plan. Share results with potential members
- Draft legal papers. File upon approval of potential members
- Hold the cooperative's first annual meeting
 - Adopt by-laws
 - Elect board members
- Implement the business plan
 - Complete membership signups
 - Secure capital and finalize other agreements
 - Hire manager
 - Acquire facilities
- Start operations (University of California Cooperative Extension, 2015)

As with traditional community gardens, farmers participating in the co-op need to have the same vision. Consider the following while planning:

- How much and how frequently farmers plan on selling their product
- What level of production farmers are working forward (remaining part-time or increasing to full-time)
- Type of market farmers want to reach (restaurants, stores, local residents)
- Whether or not the co-op will have a board of directors, and if so who the officers will be
- Will all farmers have one vote in the decision making process or will some have more than one if they produce more food?(Hennerman, 2007)

Keys to success:

- Lay out the process for making co-op decisions early on and hold regularly scheduled meetings
- Decide on a co-op label, slogan or other branding to make the operation recognizable to the community
- Determine standards for goods sold through the co-op. Farmers should agree to maintain these.
- Farmers should individually set a minimum amount of produce they will regularly sell, along with when the produce will be available each week for consumers. This commitment can be made in a vendor/sales agreement (Hennerman, 2007).

How could the Lafitte Greenway help small growers working on the land scale up?

Farmers could start growing on a small plot of land, and over time a program could be created to collectively move those growers to larger land. Bringing small growers together increases their buying power, allowing them to purchase land off the Greenway to share. Other successful New Orleans farmers could be brought in to assist with this process, providing advice and best practices. There are several farmer development programs occurring throughout the country, which could be used as a model.

Farmer co-op example from Little City Growers of Rhode Island:

Little City Growers is a group of urban farmers in Providence, RI that includes farms from $\frac{1}{4}$ acre urban lots to two-acre farms on the edge of the city. On their own, the small farms have difficulty having consistent offerings that would allow them to keep customers. Together, they share a farmers market stand and restaurant accounts. They compile their offerings weekly in a Google doc that's sent to the chefs, who then receive their deliveries by bicycle and pickup truck. At the market, they track their separate produce with different colored rubber bands. They run entirely on volunteer work from their members to do the administrative work and deliveries. (Gilbert, Ruhf, & Brushett)

FOOD HUBS

The USDA defines a food hub as a “business or organization that actively manages the aggregation, distribution, and marketing of course-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand” (USDA Regional Food Hub Resource Guide).

Creating a food hub might be beyond the limits of the Greenway, but it would still be good to understand and possibly partner with people in New Orleans involved in food hubs. Small growers on the space could get involved in one, possibly selling their product through the hub.

Benefits of a hub are similar to those of a farmer cooperative including: improved market opportunities for growers, potential job creation, and improved fresh food access for local residents living in food deserts or other areas with low food availability. (Know Your Farmer, Know Your Food)

To learn more see the USDA Regional Food Hub Resource Guide, included in the resource section.

IX. SUCCESSFUL CASES

In addition to the success stories contained in this report's references, below are some highlighted cases that may have relevance to the Lafitte Greenway Gardens.

GROWING POWER

The following excerpt is from *Urban Farm and Community Garden Hybrid Models: A case study of the Huerta del Valle Community Garden*:

Farmers' Cooperative:

Established in 1993, Will Allen created the Rainbow Farmer's Cooperative to provide small-scale United States farmers with support and training, as well as 25 connecting them with market opportunities. The cooperative welcomes both urban and rural farmers, and it currently represents more than 300 family farmers from nine states ("Rainbow Farmers" 1). The farmers produce fruit, vegetables, dairy products, and meats, in addition to non-edible items like compost, vermi-compost videos, and worm castings. Growing Power combines the Cooperative's food with food from its urban farm and then finds markets to sell both sets of crops. As a member of the Cooperative, farmers are supported in multiple ways, including being connected with markets, gaining access to small-scale wholesalers, and getting free transportation of the goods to the storage warehouse. The farmers are paid for their crops, and the money can then be invested back into improving their farms ("Rainbow Farmers" 1).

The Market Basket Program is one of the markets for Rainbow Farmer's Cooperative crops. One part mobile grocery store and one part community supported agriculture, the program uses produce from Growing Power's urban farms and from Rainbow Farmer's Cooperative to create wholesome produce packages for local families. The Rainbow Farmers Cooperative also sells crops at the Milwaukee and Chicago farmers' markets. The farmers' markets are easily accessible by foot, bike, bus, or car, addressing issues of mobility among consumers (Doherty iii).

Youth Programs:

Started in 2006, the Milwaukee program partners with the Silver Springs Neighborhood Center to teach 10-18 year olds about urban farming. After school, students join Growing Power and the Center to learn how to build sustainable urban food systems like aquaponics and vermiculture systems. Growing Power also works with the 27 Browning Elementary School to install community gardens, teach cooking classes, and educate students about food sovereignty (Milwaukee Youth Programs” 1). In addition to educational programs, the Chicago program works with After School Matters and the Chicago Housing Authority to employ students during the summer, teaching them about urban agriculture and giving them skills like work ethic and appropriate work place socialization so they can succeed in higher education (“Chicago Youth Programs” 1).

The School Garden Projects have included collaboration between the University School of Milwaukee and Growing Power in 2006 to create a school-wide composting system and raised beds. Schoolteachers and students were also trained at a Growing Power Workshop, and in return, they have volunteered at the Growing Power site frequently since. At the Urban Day School, Growing Power implemented raised beds and trained students and teachers to maintain them. The teachers then designed their curricula 28 around the garden to enhance the students’ education. Will Allen’s vision to teach children about farming through these programs is similar to the community garden model where children learn about food when they are young. However, his vision is accomplished through organized programs rather than through unsupervised experiential learning. (Hochberg, 2013)

Web page: <http://www.growingpower.org/>

Facebook page: <https://www.facebook.com/growingpower>

THE GROWING EXPERIENCE

The following excerpt is from The University of Michigan's *Urban and Regional Planning Capstone Project*:

The Growing Experience is a seven-acre hybrid model created in 1996 in the Carmelitos Housing Development in Long Beach. The Housing Authority of the County of Los Angeles (HACOLA) and the University of California Cooperative Extension (UCCE) first started it as a two and a half acre community garden in the Carmelitos Housing Development, a low-income housing development where the residents struggle with food insecurity (“About Us” 1). The Growing Experience was placed there to give residents and surrounding community members a place to learn more about fresh food and grow their own food. In 2009, the hybrid developed and implemented a Community Supported Agriculture program that continues to grow each year. The Growing Experience began research and development for an aquaponics system based on Growing Power’s aquaponics, and the system is now fully functional. Finally, in 2012 the staff implemented a certified farmers’ market and farm stand in addition to developing a community kitchen to create value-added products from the site’s produce sales.

Production:

Food is produced in two ways at The Growing Experience. Two and a half acres of the seven-acre plot are dedicated to 60 raised plots where community members cultivate their own food for private use. The other four and a half acres are an urban farm where the organization grows food for sale to the community through intensive agriculture. The urban farm produces food year-round with the assistance of a 40-foot greenhouse that is used to start and propagate seeds. The Growing Experience also produces tilapia through an aquaponics system similar to Growing Power’s design, but the fish are not yet for sale. Finally, the hybrid owns a flock of 20 laying hens that produce eggs for sale but are not sold for meat (Ng). Although the production model is not as thorough as the model at Growing Power, The Growing Experience’s production model importantly includes year-round food sales as well

as year-round community garden participation. This two-pronged model supports a number of different lifestyles, including those who prefer to cultivate their own crops and those who do not want to or cannot grow food themselves, preferring instead to purchase produce from the site.

Distribution:

The distribution system is closely tied with the urban farm rather than the community garden because the gardeners do not require outside transportation to take their crops home. Even so, some parts of the distribution system encourage community building similar to that experienced in community gardens. The most common distribution method is Community Supported Agriculture, which is a program where local farmers create boxes of seasonal produce to deliver weekly to customers. The Growing Experience creates 35 Community Supported Agriculture boxes each week that subscribers collect directly from the site... Some of the produce is distributed to local restaurants where the chefs use it in their dishes. The restaurants pay the hybrid for its produce, and the partnership boosts the hybrid's credibility and encourages community members who eat at the restaurants to offer patronage to The Growing Experience (Ng). Since the varied distribution approach caters to a number of lifestyles, The Growing Experience's customer base increases so it earns more revenue to support itself. The distribution system embraces both social and economic sales strategies, and as a result The Growing Experience has become an integral part of the community, increasing the hybrid's popularity and revenue and improving food access.

Community engagement and education:

The Growing Experience's community engagement and education programs employ effective strategies that provide valuable education to the community while simultaneously placing the hybrid at the center of Long Beach's community engagement work. The hybrid partners with the City of Long Beach Pacific Gateway Workforce Investment Network to run the Summer Youth Employment Program. Participants are paid by the Network to do hands-on fieldwork at The Growing

Experience, ranging from planting to harvesting to maintenance. The program employs youth to give them a productive summer activity and train them with necessary skills for future employment. The hybrid also works with college students, partnering with California State University to provide volunteer opportunities to service learning students in various areas of interest, 34 including aquaponics, community outreach, and crop production (Ng).

Both programs provide tangible benefits and education opportunities for the community, and they also create a means for voluntary labor onsite. The programs also further The Growing Experience's goal of increasing food access by teaching local youths how to grow crops so they can grow produce at home and teach other community members. The Growing Experience also hosts seasonal events for the community and local schools, and community members are encouraged to host events at the farm. The farm also hosts dinners with local chefs who cook gourmet meals for the community using the hybrid's produce (Ng). These community engagement programs make the hybrid more accessible for the community by making it a welcoming space for gardeners and non-gardeners alike. They also provide a safe space for community events where residents can socialize with each other. Unlike at Growing Power where the farming lessons are expensive, community members can volunteer at the hybrid and learn about farm work free of charge, which makes the hybrid much more accessible to the community. Also, many of Growing Power's events and opportunities are during the week, but since community members can host their own events onsite at The Growing Experience, they fulltime workers and other busy community members can still participate in events when it is convenient. (Urban and Regional Planning Capstone Project, 2009)

Webpage: <http://www.lacdc.org/>

Facebook page: <https://www.facebook.com/pages/Growing-Experience-Urban-Farm/272579042875312>

ADDED VALUE

The following excerpt is from The University of Michigan *Urban and Regional Planning Capstone Project*:

Added Value is an urban farm located in the heart of Brooklyn, New York. The farm covers a three-acre abandoned school lot and grows produce in raised beds. Added Value supports a full-year youth leadership initiative program, runs two local farmers markets, and supplies produce to two local restaurants and an active Community Supported Agriculture program (CSA). In order to create a sustainable urban farm, it is essential to create a strong soil base for growing beds. Added Value was able to acquire most of its soil for free from the New York Department of Parks and Recreation, and is fortunate to receive a steady donation of compost, woodchips, and mulch to sustain the beds. The Added Value youth have also started a vermiculture (worm) program to compost farm waste and provide fertilizer for the farm. The Added Value farm, and Red Hook Farmers Market, receives most of its labor through its innovative Added Value Leadership Institute program, targeting teens ages 14-19. Each year, this one-year program accepts 8-10 high school students who participate in an intensive eight-week training session in the summer and then continue their work through end of the academic year. In return for a stipend, teens work on the farm, staff the farmers' market, participate in local and national learning opportunities, and through the Digital Horizons program, gain media literacy and multimedia skills with which they keep relevant blogs and help update and run the Added Value website. Successful and enthusiastic Added Value youth have the opportunity to apply for a Youth Leadership position, and continue their work at a higher level the following year.

Business Process:

Added Value attributes much of its success to its Community Advisory Council, a group made up of stakeholders from local, regional, and national organizations that support Added Value and its various initiatives. This diverse board provides Added

Value with a broad perspective as well as access to many different sources of funding.

Challenges and solutions:

Red Hook, Brooklyn is a quickly gentrifying neighborhood. When Added Value began, Red Hook was an older, lower-income neighborhood in need of economic development and a morale boost. Through their work with the local community, Added Value helped to provide both of these things. Now, Red Hook is in the line of growth and gentrification extending out from New York City, and Added Value must decide how to grow and change with the neighborhood. As a first step, Added Value has partnered with two local restaurants, a model that can be repeated as new restaurants open in the neighborhood. Added Value also strives to be a neighborhood advocate, working to prevent new development from displacing the existing residents. (Urban and Regional Planning Capstone Project, 2009)

Webpage: <http://added-value.org/>

Facebook page: <https://www.facebook.com/AddedValueRedHook>

EARTHWORKS URBAN FARM

The following excerpt is from The University of Michigan's *Urban and Regional Planning Capstone Project*:

Earthworks Urban Farm, a program of the Capuchin Soup Kitchen in Detroit, MI, is a place of community service, education, and environmental connection for the surrounding community. Earthworks seeks to be a working example of social justice and food security in action, educating the community about their food and its origins. The farm uses the majority of its harvested produce to supply fresh fruits and vegetables to the Capuchin Soup Kitchen, which is adjacent to two of the farm's fields. Earthworks does not exist to be a hand-out to poor residents of Detroit, but rather a hand-up to all those community members wishing to enjoy healthy, local, and fresh produce. The organization hopes that outreach efforts will inspire self-motivated gardeners throughout the community and surrounding the farm, and that

those gardeners will spread their knowledge to others, branching out and creating their own urban farms throughout the City of Detroit.

Inputs:

Earthworks Urban Farm is a program of the Capuchin Soup Kitchen, overseen by the Capuchins of the Province of Saint Joseph. The Capuchins, with the assistance of private donations and volunteer labor, sponsor the farming operation. Through these efforts, Earthworks successfully farms three lots in its immediate vicinity, as well as setting up a greenhouse atop capped contaminated soil on the soup kitchen's property.

Output:

Youth education is another important output of Earthworks Farm. In collaboration with a local Lutheran church, the farm supports Growing Healthy Kids, a youth enrichment program that is facilitated by four adult volunteers each week. Growing Healthy Kids seeks to educate youth about the benefits and fun of growing, cooking, and eating local and homegrown foods. Roughly 20 children participate in this program regularly. Finally, as part of Earthworks' mission to empower the community with the tools, resources, and personal motivation for change, Earthworks provides community members with the supplies to start their own urban gardens. Earthworks grows over 100,000 vegetable seedlings for distribution to local families, community gardens, and school gardens through the Garden Resource Program Collaborative.

Business Process:

Earthworks Farm finances the majority of its operations through a combination of private and corporate donations to the Capuchin Soup Kitchen. Any income generated by the sale of value-added products produced by the farm, such as the jarred jams and honey, goes to covering production costs. Earthworks is run by a small group of fulltime staff, and depends on the assistance of the 10-20 volunteers who participate in their bi-weekly volunteer days.

Challenges and Solutions:

One of the biggest challenges facing Earthworks staff is ensuring that the Farm truly addresses the needs of the community and meaningfully involves community members. In order to address the challenges faced by the farm and neighborhood, Earthworks has started working on a number of outreach efforts, including providing space for neighborhood residents to grow their own food and working to inspire those aspiring to grow their own food to sell at market. Earthworks is also supporting a fledgling Mobile Market program, which functions like a bookmobile or ice cream truck to supplying fresh produce to underserved neighborhoods. In addition, the farm has begun researching a Healthy Corner-stores project to provide healthy, fresh food in existing corner stores. (Urban and Regional Planning Capstone Project, 2009)

Webpage: <http://www.cskdetroit.org/EWG/>

Facebook page: <https://www.facebook.com/EarthWorksUrbanFarm>

FOUR SQUARE SOCIETY

The following excerpt is from The University of Michigan's *Urban and Regional Planning Capstone Project*:

Four Square Society is the brainchild of the non-profit group Growing Hope in Ypsilanti, Michigan. The program has three main aspects: first, the program seeks to encourage intense urban agriculture in a four-by-four-foot plot of land; second, the program educates the public about the benefits of growing food in urban areas; and third, the program acts to collect and quantify data about what participants grow in their four-by-four plots, helping to create a database on the potential yield of intensive urban farming. Although informal data collection has been ongoing for four years, the formal program is currently in its second year, and continues to grow in scope and reach. The program goals are to give urban farmers a sense of satisfaction from quantifying what they produce in their plots, and to build a network for urban farmers to share information and experiences. Additionally, the

information from tracking the yield from the four-by-four plots, combined with qualitative information from an online blog, will be invaluable in the future to support urban agriculture, to encourage and inspire new farmers, and to educate the public on the benefits of urban agriculture.

Input:

Four Square Society would not be successful without the support of its parent organization, Growing Hope. Growing Hope is sustained through a combination of part-time, grant-funded workers, and volunteers that donate variable amounts of time and energy. The program itself is structured primarily online, where participants have access to electronic resources, email, and the program's blog. This has been both an advantage and a barrier to the program, offering members the flexibility of the internet while restricting members who have limited access. However, because most program resources are available electronically, the program is less resource-intensive for Growing Hope workers and volunteers. The program involves constant outreach to encourage and educate participants. Additionally, the Four Square Society requires workers and volunteers to collect and process data, and to formulate the surveys – both quantitative yield surveys and qualitative informational surveys – that provide data from the program at the end of each season. As a result the program requires administrative resources, which has proved a consistency problem for Growing Hope, an organization that depends upon a constant influx and turnover of grant workers and volunteers to operate.

Challenges and Solutions:

Once the program became officially formalized in 2008, organizers began to address the most significant barrier to the program: participant follow-through with tracking and reporting. The program recognized early on the difficulty participants had with logging the yield on their garden – many participants collect whatever is ripe in the garden in the middle of preparing their meals – and quantifying this information created an extra step in the process. The program intends to evolve to a point where each participant receives a kitchen-scale to quickly weigh the gardens'

yields, but at the moment there are insufficient resources to make this a reality. In the meantime, Four Square has gotten creative, giving participants an easier way to quantify without a scale, using common household items (a gallon milk jug with the top cut off, a Ziploc bag, a pint container from the market) to measure yield by volume, not weight. The prerogative of the program is to make data collection as simple and easy as possible for members, and with limited resources, volumetric measurements are a good solution. Another challenge to Four Square Society is worker and volunteer turnover.

An Undergraduate Research Opportunity Program (UROP) student has typically managed Four Square Society, and although Growing Hope's partnership with this program has been consistent, the high rate of turnover makes consistency on an individual level a problem, and administrative follow-through often suffers as a result. In 2008, one of the workers created a manual to help guide each intern and volunteer through the entire process of administrating the program, from the beginning of the season to the end, and so far this has proved a good solution to the problem. A final challenge to the program is the administrative resources that it requires. As a primarily internet-based program, the necessary resources to keep the program going are limited, but it still requires staff time and energy to create the necessary materials for members. For now, the burden of keeping the program energized lies with Growing Hope, which provides members with an online blog and news emails to encourage members to keep participating. (Urban and Regional Planning Capstone Project, 2009)

Webpage: <http://www.growinghope.net/>

Facebook page: <https://www.facebook.com/growinghope>

THE INTERVALE CENTER

The following excerpt is from The University of Michigan's *Urban and Regional Planning Capstone Project*:

The Intervale Center is Northwestern Vermont's local Food Hub. This 350-acre farm-scape is located within walking distance of downtown Burlington, Vermont. The Intervale Center was founded in 1986, with the initial goal of restoring soil health by composting and increasing Burlington's farming potential by transforming the local food system. Commitment to achieving these goals, matched with the Center's dedication to supporting local farmers, has made Intervale increasingly successful over the last 20 years. It is the mission of the Intervale Center to develop farm and land-based enterprises that generate economic and social opportunity while protecting natural resources. The Intervale Center consists of many programs and enterprises that seek to fulfill this mission, including the Healthy City Youth Farm, Composting Enterprise, Agricultural Development Services, Conservation Nursery, the Calkins Farmstead and the Food Enterprise Center. The numerous thriving programs supported by the Intervale Center make it a model for organizations around the country looking to adopt best management practices in the field of sustainable agriculture. This case study will focus on two innovative programs, Healthy City Program and Agricultural Development Services.

Healthy City Program:

Started in 2002, the mission of the Healthy City Program is to create a community of teens and adults dedicated to growing healthy food for themselves, their families, and low-income individuals in the Burlington area. The goals of the program are to 1) foster connections between youth, the land, and the community; 2) to increase access to locally-grown fresh food in schools and under-served areas of Burlington; and 3) to provide alternative education, skills training and paid summer work opportunities for at-risk youth aged 13-16. In order to fulfill its mission, the Healthy City program runs three programs: the Gleaning Project, to donate unsellable yet

fresh and edible produce to local food banks and needy families; the Burlington School Food Project, a collaboration between the Intervale Center and eight other local organizations to host educational field trips on the farms and to provide fresh local produce to Burlington schools; and the Youth Farm, Intervale Center's summer employment and educational program for teens.

Agricultural Development Services:

The Intervale Center's Agricultural Development Services consist of three programs that support the development of sustainable farms and the local food system. Efforts of these programs are community-based, focusing on the Chittenden County food shed. In order to fulfill its goals, the Agricultural Development Services runs three programs, the Farm Venture, Success on Farms, and the Food Hub.

Founded in 1990, the Farm Venture Program creates opportunities for new farmers by eliminating financial start-up barriers. Using the model of a business incubator, this program leases land, farming equipment, greenhouses, and storage space at a subsidized rate to small farming operations looking to produce organic food. Additionally, the Intervale Center offers technical and mechanical support to new farmers, as well as marketing and business planning resources. This farming incubator also offers the expertise of farmers that have graduated from the program. Prior to being accepted, every incubator farmer must agree to mentor other new farmers upon graduation from the program. This farming support system creates a social network that is integral to the success of new farmers. After just three years as an Incubator farmer, participants graduate and become Enterprise farmers. At this time, farmers may continue leasing land on the Intervale Center's property, but are required to pay the full price for services. Fees increase to cover the unsubsidized operating costs of the organization's services. Farmers may also relocate their farms beyond the Intervale Center.

Success on Farms is a farm viability program that the Intervale Center founded in 2002. Growing out of the Farm Venture Program, Success on Farms started as a pilot

project to increase the economic viability of Vermont farming operations. Over a two-year period, staff works one-on-one with selected farmers throughout the state to provide support and individualized business planning assistance. A critical part of this program is self-evaluation. Each participating farmer is required to assess his/her farming practice, which develops critical thinking skills necessary to future success. Through specialized support from the program and individual reflection, farmers are able to expand their markets, increase revenues, and achieve unique self-defined goals. Additionally, the program connects farmers to technical assistance providers such as lenders, extension agents, and tax consultants, who help farmers with production, distribution, processing, and marketing of their products. The overall goal of Success on Farms is to create a sincere and lasting relationship between Vermont's farmers and those dedicated to their success.

Started in 2007, the Food Hub is a project focused on meeting Burlington's increased demands for local agricultural products by supporting the local food economy. The Intervale Center is committed to building a community-based food system that connects Vermont residents to accessible, profitable, and fair food choices. The organization fulfills these goals by working with farmers and connecting them to new and well-established markets. In 2008, the Food Hub launched its first enterprise program, the Food Basket. The Food Basket is a multi-farm CSA that delivers fresh produce and agricultural products to local workplaces. An integral component of the Food Hub is research. The Intervale Center dedicates itself to furthering the local food movement in Vermont and supporting the farming community through vital research projects.

Challenges of the program - Challenges facing the Intervale Center are constantly changing. As the organization transitions and grows, new and unique issues test its ability to adapt while continuing to advance its mission. Currently, the City of Burlington is a supportive partner of the Intervale Center. This 20-year collaboration between the two institutions is responsible for Intervale Center's increased success and ability to connect with the greater Burlington community.

The City is instrumental in assisting the organization with its composting operations. The compost program's unexpected growth in its first few years resulted in management challenges, as costs started outweighing the benefits of the operation. After six years of using the compost to replenish the soil, Intervale Center decided to start creating compost commercially and selling it to the community. But transitioning into a commercial business presented unknown challenges; despite a supportive municipal government, the organization faced permitting disputes and lengthy negotiations that threatened the future success of the organization. Fortunately, Intervale Center was able to relinquish its compost operation and responsibilities to the county Solid Waste District, which now manages the program. Shifting this obligation allows the organization to focus on expanding and strengthening current programs, as well as reducing the revenues lost in maintaining the program. (Urban and Regional Planning Capstone Project, 2009)

Webpage: <http://www.intervale.org/>

Facebook page: <https://www.facebook.com/IntervaleCenterVT>

NUESTRAS RAICES

The following excerpt is from The University of Michigan's *Urban and Regional Planning Capstone Project*:

Nuestras Raíces (“Our Roots”) is an organization that “promotes economic, human and community development in Holyoke, Massachusetts, through projects relating to food, agriculture and the environment.” Since its inception, the organization has used the Puerto Rican community’s connection to farming and gardening as a tool to develop youth leadership, job opportunities, and community and cultural pride. Nuestras Raíces serves as a source of support and technical expertise for people in Holyoke who have creative and innovative ideas about how to improve their community. The organization fosters the enthusiasm and dedication necessary to create programs that will support a vital and thriving community by building on the community’s agricultural skill base.

Inputs:

Currently, Nuestras Raíces employs 20 adult staff members, and 10 youth leaders. The organization functions with an annual budget of \$1 million, which comes mostly from grant money given by the United States Department of Agriculture, the Environmental Protection Agency, and private foundations, such as the Kellogg Foundation and the Western Massachusetts Community Foundation. The group also receives funding from private donors, and exhibits a level of economic sustainability by earning income from its own enterprises. Nuestras Raíces engages 150 local youth in its many programs every year. Additionally, the organization's eight community gardens and two children's gardens serve 125 families.

Business Process:

The organization uses a formal interview process whereby volunteers, often youth, survey neighborhoods to find out how people are doing, what they need, and what they would like to see in the community. It is from this grassroots canvassing that the organization formulates its programs. The approach is a holistic one that seeks to build trust and develop relationships with a community that has historically been ignored by city agencies. Daniel Ross explains that trust building is the most important part of the work done by Nuestras Raíces. This model takes the needs and ideas from the community and turns them into projects that address these collective desires.

Employing 10 youth leaders who work in community gardens, at the farmers' market, and the Tierra de Oportunidades farm, provides work opportunities in the community. Many of the enterprises at the farm serve to enhance youth job training and leadership through vegetable farming, tours and sales, a youth-run petting zoo, and environmental stewardship. The farm's initial development included strategic planning amongst adult and youth members to decide on its goals and focus.

One of the organization's newest projects is called RootsUp Green Jobs training, which trains youth who have been involved in the justice system in emerging green industries. Through its own research, and collaboration with the Holyoke Mayor's Office, the Department of Youth Services, the New England Farm Workers' Council, and local firms, Nuestras Raices identified solar heating as a growing regional industry. This year, the organization will prepare 15 youth to take advantage of this emerging opportunity. (Urban and Regional Planning Capstone Project, 2009)

Webpage: <http://www.nuestras-raices.org/>

Facebook page: <https://www.facebook.com/NuestrasRaices1992>

SUSTAINABLE FOOD CENTER IN AUSTIN

The following excerpt is from The Sustainable Food Center:

Grow Local:

SFC's Grow Local program offers the resources and education to enable children and adults in central Texas to develop skills in food production and organic gardening as well as an understanding of the importance of local food production for the health and well-being of themselves, their families and community, and the environment.

Farm Direct:

Sustainable Food Center's Farm Direct program links farmers with customers through a variety of marketing outlets, including farmers' markets, institutional sales, and individuals at their places of work. This guide is intended for organizations interested in creating links between farmers and customers and includes three sections – Farm to Cafeteria institutional sales, specific information about Farm to School efforts; and our award-winning Farm to Work worksite wellness programming.

Cooking and Nutrition Education Start Guide:

The Cooking and Nutrition Education Start Guide is based on Sustainable Food Center's The Happy Kitchen/La Cocina Alegre® Program, which provides classes to

disadvantages communities and/or communities at risk for chronic disease. The classes are taught by peer-trained Facilitators, in community locations and emphasize healthy cooking with easily accessible and economical fresh foods. (Sustainable Food Center)

Webpage: <http://sustainablefoodcenter.org/>

Facebook page: <https://www.facebook.com/SustainableFoodCenter>

HOPATCONG COMMUNITY GARDEN

The following mission statement is from The Hopatcong Community Garden:

Mission of the garden:

HCG shall be dedicated to supporting and operating recreational community gardens for the residents of the Borough of Hopatcong, New Jersey and to the promotion of sustainable, ornamental and edible plant culture for the benefit of its members. The HCG will provide a space to garden organically, thus improving the quality of life, stimulating interaction among Hopatcong residents, producing food, preserving green space and providing opportunities for multicultural and intergenerational connections. (Hopatcong Community Garden, 2015)

This garden has been extremely successful in securing funding for both start-up and maintenance costs, working in partnership with the town, and engaging community members. A garden board has been established which has led the gardeners for several years. Hosting garden events, guest speakers at monthly garden meetings, and partnering with local organizations, are also keys to their success. On their website you can find meeting minutes, by-laws, forms, projects, video clips of guest speakers, a sitemap, and more. Several of these documents are included in this report as appendices.

Web page: <http://www.hopatcongcommunitygarden.org/>

Facebook page: <https://www.facebook.com/HopatcongCommunityGarden>

WENDELL BERRY COMMUNITY GARDEN

The following excerpt is from The Wendell Berry Community Garden:

Unlike most community gardens that divide the land into small parcels to be planted and tended by individuals, our garden is managed by a collective of people who jointly share responsibility for planning, tending and enjoying the bounty. Collective management allows us to think more long term and to design systems to maximize the sustainability of the land. For example, we are committed to producing all of the compost and organic material needed for ongoing soil health on site, so that we don't need to continually bring in outside inputs, thereby reducing our environmental impact and carbon footprint.

In addition, through a partnership with the Olympia Seed Exchange we have set aside a portion of the land for seed production, so that over time we will be raising most of the seed we need on site, and selecting crop varieties that are most adapted to our unique microclimate. In addition, by keeping bees on-site we hope to increase the pollination rate for not just our own garden but for all of the gardens within a one-mile radius.

In its short life the garden has already become a location for workshops, demonstrations, and tours designed to showcase the potential for raising food in our urban area using sustainable organic methods of production. The garden was made possible through the generous support of the landowners, Dick and Rosemary Walrod, whose commitment to building a stronger neighborhood and a more sustainable community were vital to our success. In addition, through a partnership with the Northeast Neighborhood Association we obtained a small neighborhood sustainability grant from the City of Olympia to help establish the garden. We recently secured an additional grant through the Community Sustaining Fund to support garden expansion. (Sustainable South Bound, 2015)

Webpage: <http://www.sustainablesouthsound.org/programs/local-food-systems-program/wendell-berry-community-garden/>

Facebook page: <https://www.facebook.com/pages/Welcome-to-the-Wendell-Berry-Community-Garden/10150125702825015>

SOUTHBOUND GARDENS

The following information is quoted from Southbound Gardens:

...Southbound Gardens is a for-profit enterprise, it is part of our mission to prove that urban farming is a financially viable endeavor in New Orleans (or anywhere else!). A mild exception to this is our garden at Southern Food and Beverage Museum. In the case of that space, we partnered with them to build a garden behind their library. They paid the initial build-out costs (the aforementioned materials), we pay for maintenance and upkeep costs henceforth, deal with the labor and organization and keep profits from crops for ourselves, while collaborating with them on classes and programs and of course leaving the space available to them to use for whatever programming they wish to use it for. (Willson & Bantuelle, 2015)

Web page: <http://www.southboundgardens.com/>

Facebook page: <https://www.facebook.com/pages/Southbound-Gardens/360387627427502>

PORTLAND PARKS AND RECREATION COMMUNITY GARDENS

In Portland city employees manage all community gardens that use city land. This staff helps each garden develop its own leadership team, consisting of garden members to manage it. Each team member is assigned a role (i.e. communication, new member inductor, site management, community outreach, etc.) Having local gardeners run the garden builds a deeper sense of ownership. This team communicates with the city staff on a regular basis, to relay any issues that arise. The city staff manages things such as the garden waiting list, policy enforcement, collection of dues from gardeners, and handles major maintenance. Portland also works with a lot of refugee communities and receives special funding (Niemi, 2015).

Web page: <https://www.portlandoregon.gov/parks/39846>

CITY OF SAN FRANCISCO COMMUNITY GARDENS

The following excerpt is from The City of San Francisco Community Gardens:

The Rec and Park Department supports and manages a program of 38 community gardens (and growing!) on City-owned property, where members can grow produce and ornamental plants for personal use. Gardens range in size from a few hundred square feet to thousands of square feet; some offer individual plots while others have shared plots. Some gardens also offer demonstration gardening or other instructional programming.

The Community Gardens Program is a substantial component of the new citywide Urban Agriculture Program. Each garden is operated by a group of committed volunteers, and membership fees are often self-imposed to cover common expenses.

In 2006, the Recreation and Parks Department adopted a set of policies and standards that provides a uniform framework for community gardens across the city, while at the same time allowing flexibility of management within each garden. The intent of these policies is to ensure the continuation of equal opportunity for public access to all gardens. (San Francisco Recreation & Parks, 2015)

Webpage: <http://sfrecpark.org/park-improvements/urban-agriculture-program-citywide/community-gardens-program/>

See appendices for documents on these policies and gardener agreements.

X. RESOURCES

PLANNING

- American Community Gardening Association
 - Latest resource page - <https://communitygarden.org/resources/>
 - Environmental Education Lessons - <https://communitygarden.org/programs/environmental-education-community-garden/>
 - Garden Mosaics (overview of program for use in teaching garden) - https://communitygarden.org/gardenmosaics/downloads/GardenMosaics_Kennedy_2005.pdf
 - Garden Mosaics (program manual) - https://communitygarden.org/gardenmosaics/downloads/GardenMosaics_ProgramManual.pdf
- Forsyth Community Gardening
 - Extensive resource list on: starting a community garden, legal and safety considerations, composting, container and raised bed gardening, diseases, food preparation, flowers and herbs, fruits and vegetables, fundraising, insects, plot gardens, soil, youth, and Spanish materials - <http://www.forsythcommunitygardening.com/PrintedMaterials.aspx>
- Community Gardens WA
 - Sample induction tools - www.communitygardenswa.org.au
- Partnership for Sustainable Communities
 - Farm business plans and useful worksheets - http://www.epa.gov/brownfields/urbanag/pdf/urban_farm_business_plan.pdf
- National Recreation and Park Association
 - Building a Community Garden in Your Park (information on materials and other physical planning features) - https://www.nrpa.org/uploadedFiles/nrpaorg/Grants_and_Partners/Parks_and_Conservation/Resources/Community-Garden-Handbook.pdf

MAINTENANCE

- Portland Parks and Recreation
 - Community Gardens Business Plan (Appendix E includes list of workshop ideas and descriptions) - <https://www.portlandoregon.gov/parks/article/473894>
- Redwood City Community Gardens
 - Program examples for youth - <http://www.redwoodcity.org/manager/initiatives/gardens/bestpractices.html>

MONITORING & EVALUATION

- Cornell University Cooperative Extension and Department of Horticulture
 - Overview - <http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit/>
 - Evaluation guidelines - <http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit/evaluation-guidelines/>
 - Surveys (samples included) - <http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit/surveys/>
 - Interviews (samples included) - <http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit/interviews/>
 - Observations (samples included) - <http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit/observation/>
 - Other evaluation links - <http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit/evaluation-links/>
 - Program evaluation overview - <http://files.campus.edublogs.org/blogs.cornell.edu/dist/3/72/files/2012/03/Evaluation-Overview-14cl0cv.pdf>

BUDGETS & FUNDING

Budgets

- Laughing Buddha
 - <http://www.laughingbuddhanursery.com/>
- Eco Urban
 - <http://ecourbanllc.com/>
- NOLA Green Roots
 - <http://nolagreenroots.com/>
- The Composting Network
 - <http://compostingnetwork.com/site/>
- Parkway Partners
 - <http://parkwaypartnersnola.org/>
- Urban Roots Garden Center
 - <http://www.urbanrootsnola.com/>

Funding

- American Community Gardening Associations
 - Garden insurance - <https://communitygarden.org/programs/garden-insurance/>
 - Current national funding opportunities - <https://communitygarden.org/grants-fundraising/>

- Additional funding opportunities (can also submit to their email list to receive new funding notifications) - <https://communitygarden.org/resources/funding-opportunities>
- Kids Gardening
 - Funding for teaching gardens - kidsgardening.org
- USDA Local Food Systems Funding
 - Know Your Food, Know Your Farmer - www.usda.gov/knowyourfarmer
- USDA Agricultural Marketing Service
 - Farmers Market Promotion Program - <http://www.ams.usda.gov/AMSV1.0/FMPP>
 - Local Food Promotion Program - <http://www.ams.usda.gov/AMSV1.0/LFPP>
 - Specialty Crop Block Grant Program - <http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateN&rightNav1=SpecialtyCropBlockGrant0Program&topNav=&leftNav=CommodityAreas&page=SCBGP&resultType>
 - Organic Cost Share Program - <http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateQ&leftNav=NationalOrganicProgram&page=NOPCostSharing&description=Organic%20Cost%20Share%20Program&acct=nopgeninfo>
 - Federal State Marketing Improvement Program - www.ams.usda.gov/fsmip
- USDA Rural Development
 - Business and Industry Guarantee Loan Program - <http://www.rd.usda.gov/programs-services/business-industry-loan-guarantees/>
 - Value-added Producer Grants - <http://www.rd.usda.gov/programs-services/value-added-producer-grants>
 - Community Facilities Direct Loan and Grant Program - <http://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program>
 - Rural Business Development Grants - <http://www.rd.usda.gov/programs-services/rural-business-development-grants>
- USDA Natural Resource Conservation Service
 - Environmental Quality Incentives Program - <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/>
- USDA National Institute of Food and Agriculture
 - Community Food Projects - http://www.nifa.usda.gov/funding/cfp/cfp_synopsis.html
 - Food Insecurity Nutrition Incentive Grant Program - <http://nifa.usda.gov/program/food-insecurity-nutrition-incentive-fini-grant-program>
 - Beginning Farmers and Ranchers Development Program - <http://www.nifa.usda.gov/fo/beginningfarmersandranchers.cfm>
 - Small Business Innovation Research Program - <http://nifa.usda.gov/program/small-business-innovation-research-program>

- Agriculture and Food Research Initiative - <http://www.nifa.usda.gov/funding/afri/afri.html>
- USDA Farm Service Agency
 - Microloan Program - <http://www.fsa.usda.gov/programs-and-services/farm-loan-programs/microloans/index>
 - Farm Storage Facility Loans - [http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20140310_frnl_n_en_prg.html](http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=land&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20140310_frnl_n_en_prg.html)
- USDA Food and Nutrition Service
 - Farm to School Grants - www.fns.usda.gov/farmtoschool/farm-school
 - Supplemental Nutrition Assistance Program - <http://www.fns.usda.gov/ebt/learn-about-snap-benefits-farmers-markets>
 - WIC Farmers' Market Nutrition Program - <http://www.fns.usda.gov/fmnp/overview>
 - Senior Farmers' Market Nutrition Program - <http://www.fns.usda.gov/sfmnp/overview>
- Livable Community Projects
 - Federal Resources for Sustainable Rural Communities" - <http://www.sustainablecommunities.gov/partnership-resources/federal-resources-sustainable-rural-communities-guide>
 - National Endowment for the Arts Our Town Grants - <http://arts.gov/grants/apply-grant/grants-organizations>
- EPA Brownfields Programs
 - Area-wide Planning Pilot Program - http://www.epa.gov/brownfields/areawide_grants.htm
 - Assessment Grants - http://www.epa.gov/brownfields/assessment_grants.htm
 - Revolving Loan Fund Grants - <http://www.epa.gov/brownfields/rlflst.htm>
 - Cleanup Grants - http://www.epa.gov/brownfields/cleanup_grants.htm
- Transportation Alternatives Programs (TAP)
 - <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>
 - School projects and programs - http://www.fhwa.dot.gov/environment/safe_routes_to_school/

FARMERS' CO-OPS & FOOD HUBS

- National Ag Law Center
 - Legal information on farmers' co-op's - <http://nationalaglawcenter.org/research-by-topic/cooperatives/>
- CoBank
 - Financial information on farmers' co-op's - <http://www.cobank.com/About-CoBank/Industries-We-Serve/Agribusiness.aspx>

- Urban Ag Law
 - Information on legally selling produce - <http://www.urbanaglaw.org/food-ag-and-health/>
- USDA
 - Regional Food Hub Resource Guide - <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5097957>
 - "How to Start a Cooperative" (PowerPoint presentation) - <http://www.rd.usda.gov/files/publications/How%20to%20Start%20a%20Co-op.pdf>
- Know Your Farmer, Know Your Food (Regional Food Hub Subcommittee)
 - Regional Food Hubs: Linking producers to new markets (presentation) - <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5088011>
- A Greenhorns Guidebook: Faith Gilbert
 - Cooperative Farming: Frameworks for Farming Together - http://www.thegreenhorns.net/wp-content/files_mf/1393438767FINAL_greenhorns_guidebook_PK2.pdf
- Boston Public Market
 - <https://bostonpublicmarket.org/>
- Online Farm-to-Table Hub
 - Information on online hubs - <http://modernfarmer.com/2013/11/food-hub-org/>
- Ecotrust
 - Online food hub information - <http://www.ecotrust.org/project/foodhub/>
- Seattle Tilth
 - Produce resources - <http://www.seattletilth.org/about/stproduce>
- California Center for Cooperative Development
 - Information on starting and maintaining agriculture cooperatives - http://cccd.coop/publications/general_resources/ag_resources
- Northwest Agriculture Business Center
 - Puget Sound Food Hub - <http://www.agbizcenter.org/business-services/regional-food-hubs/north-sound-wholesale-market>
 - Business services - <http://www.agbizcenter.org/business-services>

SUCCESSFUL CASES

- University of Michigan "Building a Community-Based Sustainable Food System"
 - Case studies and recommendations - <http://closup.umich.edu/publications/misc/Community-Based-Sustainable-Food-Systems.pdf>
- Rose Kennedy Greenway
 - <http://www.rosekennedygreenway.org/>
- NYC Highline
 - Overview of design, partners, practices, etc. - <http://www.thehighline.org/about>

Sustainability of Lafitte Greenway Gardens

- Staff page for use as a model - <http://www.thehighline.org/about/staff-and-board-members>
- Sustainable practices - <http://www.thehighline.org/about/sustainable-practices>
- Boston Natural Areas Network
 - Community gardens - <http://www.bostonnatural.org/communitygardens.htm>
- Friends of the Richmond Greenway
 - <http://www.richmondgreenway.org/>
- Puget Sound Food Hub
 - <http://www.pugetsoundfoodhub.com/food/>
- 21 Acres
 - Regional food hub - <http://www.21acres.org/farm-to-table/regional-food-hub-at-21-acres>

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XII. APPENDICES

PLANNING

- A. City Zoning Code Open Space Districts
- B. Hopatcong Community Garden Site Map 2015
- C. Hopatcong Community Garden Site Map Completed 2014

MANAGEMENT

- D. San Francisco Community Garden Policy Handbook
- E. Hopatcong Community Garden Operating Rules
- F. Hopatcong Community Garden Bylaws
- G. ReFresh Community Farm Letter of Agreement
- H. San Francisco Community Garden Plot Agreement
- I. San Francisco Community Garden Waiver, Release, and Hold Harmless Agreement
- J. San Francisco Community Garden 30 Day Gardener Notice
- K. San Francisco Community Garden Responsibility Task List

EVALUATION

- L. Community Food Project Evaluation Toolkit
- M. Community Food Project Satisfaction Survey

BUDGETS & FUNDING

- N. ReFresh Community Farm Budget
- O. LFLP Appendix E

PROGRAMMING

- P. University of Idaho Logic Model Guide
- Q. Community Garden Connections Logic Model (page 8) & Evaluation Framework (pages 9-11)