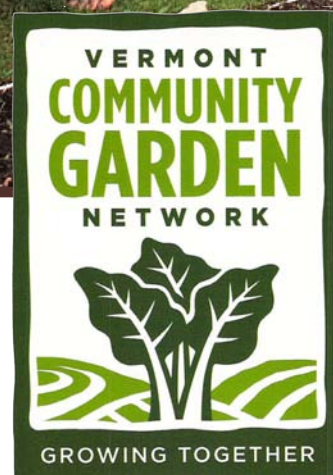


Edible Landscaping & Community Gardening TOOLKIT

*A guide for starting, growing and sustaining
healthy and productive edible landscapes
at affordable housing communities*



VERMONT
EDIBLE LANDSCAPES



ACKNOWLEDGEMENTS

This toolkit was developed through a collaboration between the **Vermont Community Garden Network (VCGN)** and **Vermont Edible Landscapes (VEL)**. It builds on the work of the Vermont Housing and Conservation Board to assess and support food access at housing sites. The tips and resources in this document are drawn from interviews with housing communities across Vermont, successful practices and useful tools in the field, and personal experience of the authors with developing edible landscapes and community gardens at affordable housing communities. This Toolkit is a working document that will be updated periodically with more resources, examples, and up-to-date information about community gardening and edible landscaping.

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Graphic Design: Anne Linton Elston, MacWorks

Funders: Irvin Stern Foundation and private donors

Photos: All photos were taken by VCGN staff unless otherwise credited

Recognition and thanks go to our contributors and early reviewers: Erica Feinberg, Good Food Good Medicine; Dan Haycook, Rural Edge; Kelly Hamshaw, University of Vermont Center for Rural Studies; Doug Hemmings, Highgate Housing Nonprofit; Anna Herman, Champlain Housing Trust; Megan Humphrey, Helping And Nurturing Diverse Seniors; Joseph Kiefer, Good Food Good Medicine; Sara Kobylenski, Upper Valley Haven; Allison Lea; Sandra Lory, Good Food Good Medicine; Jane Metcalf, Upper Valley Haven; and Kathy Parrott, Burlington Housing Authority. Special thanks to the many resident gardeners who make this work possible.

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January 2016 - Vermont Community Garden Network and Vermont Edible Landscapes



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A Delicate Balance

Community gardeners know the feeling well

You amble out to your garden for a few hours of gratifying labor, but as you approach your garden plot something seems wrong, very wrong.

Another few steps and you take it in and you know that horrible feeling after a few woodchucks or a deer have enjoyed the bounty of your garden, and turned your beautiful garden into desolation row.

Suddenly your garden – and your spirits – are turned upside down.

I often compare these occasional gardening disasters to the daily life of our most vulnerable neighbors. Families living in scarcity face these random, spirit-breaking disasters with much greater frequency. Often just snapping a single strand of a family's delicately woven web can make the whole thing fall apart.

And what is the first thing families on the margin typically scale back when things fall apart? Food.

That conundrum is what I have witnessed for decades as I and hundreds of other well-meaning food justice activists slowly attempt to rebuild Vermont's local and regional food system to serve all Vermonters, and most importantly families with precious few back-up resources, our most vulnerable population.

Three Truths

After 30 years in the food security field, with the last decade focused almost entirely on gardening and food production at affordable housing sites, I and most of my fellow activists have been awakened to certain inescapable realities.

- There is no quick fix to the food security crisis at affordable housing communities. No one can solve someone else's problems, but we can begin to create the conditions through hands-on food and gardening education where people become empowered to change their own lives.
- Food access is not enough unless it is accompanied by the skill building of food education through working in one's own garden, tending, harvesting, preserving and cooking the most nutritious foods on the planet.
- We need to think long term and begin the work of cultivating relationships with residents so they can trust that we will keep showing up to work and learn together.

Three Understandings

To accompany this comprehensive tool kit I would like to offer a brief set of shared premises – understandings I call them – to guide our long-term investment of time, energy and resources.

Understand the Built Environment challenges of affordable housing sites.

We have learned that the more we integrate people of different income levels the more stable and positive the climate will be. Most affordable housing sites are occupied by people with limited incomes, living a life near or below the poverty level.

Housing is dense with very little personal green space. This density of living can result in conflicts and interpersonal challenges that impact the lives of children and families. For many families this built environment becomes a poverty trap. It is often very hard to escape the talons of this existence.

Understand the unique Social Environment challenges of each housing site.

At many affordable housing sites residents eke out a day-to-day survival existence. Every day brings new pressures to put food on the table and fuel in the car, if there is a car. Every day brings health challenges, domestic strife, and unplanned crises.

Because of this extremely stressful social environment it is absolutely essential we take the time to cultivate authentic relationships with residents who want to be involved. We must see this work as long-term, multi-year, season-by-season. As food educators and community organizers we cannot build trust, mutual respect, and understanding any other way.

Understand the myriad health problems of residents.

Yes, our industrialized food system produces staggering amounts of food, but the food that trickles down to people who live in poverty is typically of the poorest quality. Research has shown that high consumption of processed food is linked to steep increases in obesity, diabetes, heart disease, and cancer. This reliance on processed food also translates to limited exposure to cooking from scratch with fresh, raw, nutrient-dense foods.

We have had to practice flexibility as many participants come and go because they're also dealing with serious health problems. This is the real work we are setting out to do. You can plan and plant a lush garden, but if people are not present, engaged, and empowered then so many new initiatives will never bear fruit.

This is a time like no other.

Vermont is a national leader in building a local food system. We are truly part of a local food renaissance. Yet we still struggle mightily with having local food accessible to everyone regardless of income and ability to pay. Let me end by thanking you the reader for hearing this call to action and having the moral conviction that these gardens can grow so much more than food. They can grow lifelong skills with the power to change lives.

***Give a man a fish, he'll eat for a day. Teach a man to fish, he'll eat for a lifetime.
– Chinese proverb***

Joseph Kiefer co-founded the Vermont Food Bank and served on the Governor's Task Force on Hunger in 1985-86 and again in 2007-09. He co-founded Food Works, Vermont FEED, and was an early pioneer in the Vermont Farm to School movement. He is now an independent Food Justice Consultant.





Community gardens at Albert's Way, a Habitat for Humanity housing community in Charlotte, Vermont, bring multiple generations together to grow and learn about healthy food.

Introduction

How to use this toolkit

This toolkit is a resource for residents, resident services staff, housing site managers, buildings and grounds staff, service providers, and others who want to establish, enhance, or support edible landscaping and community gardening at housing sites.

The sections are divided up so you can easily access the information that is most useful to you and your site at whatever stage of development. Throughout much of the document there are guiding questions to help you think through practices and strategies that are most appropriate for your housing site. There are also real examples of how Vermont housing sites have creatively developed gardens/edible landscapes, solved common garden/landscaping issues, and produced successful gardens/landscapes and programs. Lastly, throughout the document and in the *Resources and Appendices* section, there are links to resources to help you achieve your garden/landscape goals, as well as pull-out tips and templates to support you as you plan and plant your gardens.

The best practices promoted in this document are based on the experiences of housing site garden coordinators and other successful community garden and edible landscaping projects, as well as research in the field. As you're reading this, don't forget: every housing community and site is different. This toolkit is a guide, not a manual — honor the unique culture of your site and find the model and techniques that work best for you.

Why develop gardens and edible landscaping at housing sites?

Many housing site residents have limited access to fresh food and food education. Growing food close to home has many benefits. It provides access to fresh vegetables and fruit, can help reduce the amount of money spent on food, provides opportunities to get outside, and is a great way for children to learn about food. Places where people can grow food together, like community gardens, have the added benefits of social interaction and sharing experiences. Using edible landscaping instead of traditional plantings can add food to spaces that may not be suited for vegetable gardens.

Benefits

- Opportunity to grow food where people live (access and affordability)
- Hands-on food and garden education
- Community building
- Personal health & well-being
- Personal resiliency
- Environmental health
- Create social activities for isolated families, seniors, and other residents
- Teach basic food and vocational skills
- Empower youth and disabled residents
- Encourage water conservation, waste reduction, and environmental awareness
- Beautify site grounds



Vermont Edible Landscapes

Food security in Vermont

Vermont is often recognized as a leader in local food consumption and healthy lifestyles, but many people don't have enough food. According to Hunger Free Vermont, 34,000 Vermont households are food insecure, that's more than 84,000 adults and more than 25,000 children. Meanwhile, 58% of Vermont adults are obese or overweight and 24% of school-age youth are above a healthy weight. Children living in food insecure homes are at greater risk for poor health, nutritional deficiencies, and developmental delays, as well as poor academic achievement, depression, and increased aggressive or hyperactive behavior. Obesity in all ages is related to poorer mental health outcomes, reduced quality of life, diabetes, heart disease, stroke, and some types of cancer.

There is a direct connection between food access and hunger and obesity. The strategies for making sure everyone has enough food traditionally fall into three categories: supplemental assistance programs (SNAP/3SquaresVT, WIC, School Lunch Programs, etc.) and subsidized CSA and farmers market incentives; charitable or emergency food, such as food pantries and meal sites; and community food security programs that focus on building people's capacities to feed themselves through job training, food, nutrition, and garden education. To help reduce hunger and make sure that everyone has access to fresh, healthy food, we need a diverse approach that involves all three strategies, including access to land for growing crops, and the knowledge to maintain, store, process, preserve, and cook those food staples.

Housing sites can play a key role in increasing food security and overall health by providing opportunities for residents to grow their own food, access food and nutrition education, and enjoy the benefits of exercise and fresh air.

Benefits of edible landscapes as compared to traditional landscaping:

- Replaces traditional plant materials with edible trees, shrubs, herbaceous plants and vines providing residents with food and/or medicine
- Maintenance of plantings offers exercise and other wellness benefits for residents
- Encourages a vibrant and non-toxic environment where residents can interact with their surroundings
- Long term maintenance cost savings
- Design emphasizes a diversity of plants (polyculture) rather than one plant type (monoculture), promoting a healthier environment for plants to survive and thrive
- Creates habitat and increases biodiversity (i.e. wildlife, beneficial insects, etc.)



Project partners

The **Vermont Community Garden Network's** mission is to support and grow the state's vibrant network of community and school gardens. This mission is achieved by helping community-based groups start and grow gardens; teaching children, families, adults, and seniors how to grow food; testing and replicating effective garden education programs; and supporting, training, funding, and connecting a diverse network of garden leaders and educators. We envision healthier Vermont communities with a high level of food security, food justice, and positive community development and social connections. For more information, visit www.vcgn.org and find us on Facebook and Twitter at VTGardenNetwork

Vermont Edible Landscapes, LLC is a land planning business focused on the development of agro-ecosystems. We work with our clients to design, install and establish ecologically regenerative landscapes. We approach land management through an agrarian lens utilizing a variety of diverse biological disciplines. Our services include: Site Evaluation, Planning and Development. As an extension of our land planning business we run a small nursery that offers a wide range of planting materials to help support both residential and agricultural projects. We are solely focused on growing perennial plants that sequester carbon and produce food, fodder or medicine. As a business, we see access to nutrient dense foods as a social justice issue and believe this access should be attainable by all people regardless of socio-economic standing. For more information on Vermont Edible Landscapes, find us on Facebook, Instagram and Twitter or contact: meghan@vermontediblelandscapes.com

Residents at Franklin Square, a Burlington Housing Authority property in Burlington, Vermont, have access to garden space to grow for their families and summer meals for young residents.



Vermont Edible Landscapes

Planting edible perennials can provide residents with favorite and new types of fruit that would otherwise be expensive or difficult to buy, like these high bush cranberries.

The Evolution of the American Landscape

Author Rosalind Creasy points out in her Edible Landscaping book that Egyptians were some of the first to design their landscape. Historically, ancient landscape design was focused more on survival and ceremony and less on aesthetics. Interestingly, the three most influential landscape styles from Europe have their roots in food production: Italian Renaissance gardens, French Baroque gardens, and English Pastoral landscapes. Several factors played into the evolution of the American landscape, including the development of subdivisions with large homes on small lots, women entering the workplace and no longer gardening, and the development of power tools (mowers, blowers) which made land care less labor intensive. With migration to suburban areas, the culture changed and American priorities shifted away from growing food. Today, we are seeing more and more people using fruit and nut trees, berry bushes, vegetables, herbs, edible flowers, and ornamental plants as part of their landscape design for aesthetics as well as for food.

Meanwhile, community gardens have been providing space for people to grow food, gain skills, and connect with each other in U.S. cities since the 1890s. During World War I, the federal government promoted community gardens to supplement and expand the food supply and during the Great Depression more than 23 million households grew produce. The Victory Garden campaign during World War II encouraged people to grow food for personal consumption, recreation and to improve morale. After the war, only a few gardening programs remained. These gave rise to the rebirth of community gardening in the 1970s as a response to urban abandonment, rising inflation, and environmental concerns, followed by a decline in the number of gardens, mostly due to development pressure and lack of infrastructure in the 1980s. Today, we are seeing a resurgence in community-based gardening and urban agriculture as more and more people look to shared spaces to grow their own food and build community. Vermont has nearly 400 gardens all over the state in neighborhoods, at schools, food pantries, workplaces, housing sites, and more.



Champlain Housing Trust

"The glory of gardening: hands in the dirt, head in the sun, heart with nature. To nurture a garden is to feed not just the body, but the soul."

— Alfred Austin



Community volunteers join residents to help get gardens ready on opening day at Harrington Village in Shelburne, Vermont.

Planning and Implementation

What's right for your site?

You must be eager to get started, but take a moment before digging into the ground to ask yourself some basic questions around interest, commitment, space, and maintenance. This will pay off in the long run! Whether you're hoping to establish edible landscaping (fruit trees, berry bushes, etc.), create a vegetable gardening space, or re-invigorate existing gardens or landscapes, here are some key questions to answer before you enter the planning phase:

- Do residents want a garden and/or edible landscaping?**
Start with a simple survey or go door-to-door to assess garden interest (be sure to capture names and contact info for those interested). For more on assessing interest see page 21, *Why do you want a garden or edible landscaping at your site?*
- Is there buy-in and commitment (logistical, financial, ideological) from the site management and staff for a garden and/or edible landscaping?**
If you're trying to convince property decision-makers of the benefits of community gardens and edible landscaping review *Introduction*. For more info on the financial and material resources needed to make a garden/landscaping project successful read page 41 and associated resources.
- Are there staff and residents who can be leaders to manage the garden space and/or plantings and coordinate people to get involved?**
Refer to the list on the next page under *You Can Do It!* for sample garden management tasks.
- Is there sufficient and accessible space for vegetable gardens/edible landscaping with appropriate soil and sunlight conditions and available water?**
For a list of for growing requirements, see page 35, *What do you know about your site?*
- Based on the above answers, do you have the capacity needed (interest, people, time, finances, space) to establish and maintain the garden space and/or plantings and benefit from the harvest?**

If your answer is “yes” to all of the above, you're ready to start planning your project—read ahead!



Champlain Housing Trust

TRACK YOUR PROGRESS THROUGH THE STEPS IN THIS TOOLKIT:

STEP 1

STEP 2

STEP 3

ONGOING

PLANNING & IMPLEMENTING

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If your answer is “no” or you don’t know the answer to any of the above questions, please take the time to browse through the following pages for some tips to bring your group to the next level of readiness.

Alternatives

If your site is not ready for gardens and/or edible landscaping but you want to bring more healthy food into your housing community, consider other routes such as food shelf programs, farm shares, and food/nutrition education programs. For a list of Vermont-based programs that can support your housing community go to *Resources & Appendices* or *Gardening, Cooking, & Nutrition Education*. If your priority is to add more healthy green spaces to your property, consider other ways of beautifying the landscape and saving green space, such as low-maintenance plantings and creating places to sit and enjoy the outdoors.

You can do it!

Below is a sample list of tasks associated with starting and managing a community garden or edible landscaping project at your housing site. Read ahead to learn more about all that goes into guiding a successful project.

- Organize a team to plan your project
- Garner support (logistical, financial, ideological)
- Design the community gardens and/or edible landscaping
- Set up a management plan for your garden and/or landscaping
- Recruit gardeners
- Obtain materials and other resources for the garden and/or landscaping
- Manage ongoing needs of garden and gardeners
- Organize work parties, celebrations and other garden events
- Facilitate garden-related workshops and other educational opportunities



STEP 1: Get Your Group Organized



Involvement in your garden/landscape project will likely evolve, wax, and wane over time, but starting with a core group of dedicated individuals will help you gain perspective on the community's interest in and commitment to gardens, establish buy-in and ownership over the project among residents and property management staff, and ensure that permissions, needs, and desires of all stakeholders are met.

Who should be involved?

The Project Team - Who are you?

Are you a resident at the housing community? Do you work for a property management group? Do you provide services to the housing community through a non-profit organization? Or are you a community member just interested in pitching in? As part of the project team you bring your own valuable

“Listen to residents about what they want before making plans”

— Anna Herman,
Community Relations Specialist,
Champlain Housing Trust

perspective to the project; you also represent a larger group of people who hold a stake in the outcome of the project. When planning your project bring in perspectives from all interested residents and consult with property staff to ensure the project is feasible. Overall your project team should be diverse in terms of people and perspectives, representative of those who hold a central stake in the project, enthusiastic, and committed to getting the work done.

Your Core Group:

- **Residents** - Those who live at the housing site are the most important participants in your project. Start by surveying residents for interest. Include interested residents in as much of the planning, designing, building, and planting of the gardens and/or edible landscaping as possible. Residents should be engaged in ongoing maintenance and activities associated with the gardens. In addition, some housing communities establish a resident-run garden committee to oversee management and decision-making about the garden.
- **Maintenance crew/grounds staff** - The crew or individual who cares for your grounds is one of your key allies. From the very beginning, make sure they are on board with any maintenance and upkeep needed, such as trimming between beds or hooking up watering systems. Involve maintenance/grounds staff in the planning and designing of the garden, as appropriate. Some maintenance/grounds staff are also willing and already have the equipment to help build raised garden beds, till the site, construct sheds and fences, and assist with other projects to get your gardens established.
- **Housing Site Staff** - Whichever housing staff person works most closely with residents is typically the natural go-between for the residents and the property management group. Depending on your site, this person will play an important role in getting approval for the project and materials, and negotiating resident and housing management needs. Most often this is the

Facilitator and Educator

“As a Good Food Good Medicine facilitator and educator my role is to encourage people through projects like growing, cooking, nutrition, home remedies, preserving, and other aspects of food education so people feel empowered with a choice about their own self-care. My intention is to create a safe and inclusive learning space so that each individual can express their own voice and contribute to the group. If natural leadership can come forth, this is how the garden will be built and sustained. I recognize there is power and responsibility as a facilitator and educator, I try to honor that through understanding systemic oppression through my own self-awareness so I can be accountable to my own privilege. I am a white, middle class woman with a college education. My identity infuses the words, actions, and structure I create.”

— Erica Feinberg, Good Food Good Medicine, Barre, Vt.

resident services coordinator or property manager; however there are others such as Support and Services at Home (SASH), coordinators at senior sites, and community engagement or community relations specialists who play important roles in enriching resident well-being through programs and on-site initiatives.

- **Management Staff (decision-makers)** Beyond the all-important “thumbs up” from management, continue to keep these decision-makers apprised of project developments, positive results, and fun garden-related events they may want to participate in. Their buy-in is essential for immediate and long-term support of current and future garden projects. If your housing site is a cooperative, your process may change based on a different decision-making structure.

Your Support System:

These are the people who, when plans for a garden start to form, pop out of the woodwork to lend their tiller, donate tools, build beds, contribute time in the garden, and more.

- Friends, family, and other acquaintances of your core group
- Neighbors
- Nearby businesses and organizations
- Nearby schools and other institutions
- Local Extension Master Gardeners or other knowledgeable garden volunteers

Other potential people and institutions to have on your side:

- Your city/town zoning department - Some municipalities have strict zoning laws and approval requirements when it comes to landscaping. Know your local zoning restrictions and start off on the right foot with your zoning board.
- Food-related non-profits, such as Vermont Foodbank, local food pantries, and regional farm and food organizations - These groups are invaluable, especially when you're looking to develop educational programming around your gardens.
- Statewide resource groups and technical assistance providers, such as Vermont Community Garden Network (VCGN), Northeast Organic Farming Association (NOFA) Vermont, and University of Vermont (UVM) Extension Master Gardeners.
- Landscape design firms, landscapers and arborists with experience in edible landscaping.

Resources: *Building Your Garden Leadership Team (VCGN), Integrating Food Access & Affordable Housing (VHCB)*



Champlain Housing Trust

A core group of gardeners share responsibilities within the garden, with support from the Community Relations Specialist and the Property Manager at Avenue Apartments, a Champlain Housing Trust property in Burlington, Vermont.



Barre community gardeners participate in a planning session through VCGN's Grow It! workshop for garden leaders, taking place at Highgate Apartments in Barre, Vermont.

What do you need to discuss?

1. How should your garden team be structured for planning, coordination, and management of the gardens?

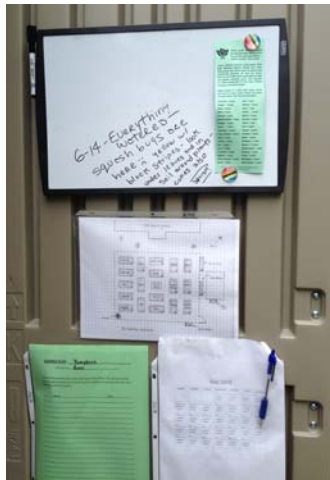
Once you've formed a team of involved and interested people for planning and managing your gardens/edible landscape (see section above on *Who should be involved?*) take the time to give your group some structure to keep things running smoothly. Some things you'll want to decide:

- **What does each person bring to the group?** As your group is forming get to know each other and what each person has to offer in terms of perspective, experience, knowledge, skills, interests and resources. This will help you to determine best roles for each person involved and what resources you have available for your project. Read more about Asset Mapping, a helpful tool for looking at the skills, knowledge and social and material resources of your group, on page 22.
- **How will your garden team work together?** Many groups find it helpful to set “group agreements” early in the project that will benefit you later as you make decisions and address issues related to the garden/landscaping. See *Resources & Appendices* for sample group agreements.
- **How are decisions made and who makes the final call?** Determine what garden/landscape-related decisions can be made by involved residents and what needs to be decided by property management. Involving all interested

residents in decisions will help increase their investment in the project and interest in outcomes.

- **How are gardener concerns, ideas, and needs communicated and shared?** Work together as a team to make decisions and get things done in the garden/landscape, but be sure to have a system or point-person for addressing issues and communicating needs to property management when necessary.

- **How are garden/landscape needs communicated and dealt with?** Similar to gardener needs, have a system and person in place for communicating tasks that need to happen in the garden. Additionally, having a note board (i.e. bulletin board, white board) at the garden in a tool shed or other sheltered area will allow gardeners to communicate with each other about basic garden needs such as watering, weeding, pests, and harvesting.



- **How is the garden/landscape funded and the budget managed and who is involved?** See page 41 on *financial and material resources*.
- **What guidelines does your group want in place for use and management of the gardens?** Garden/landscape guidelines that are agreed upon by all involved parties are useful in order to develop a common understanding and avoid potential conflict. A few examples of points you might want to include: what property management will provide and what residents will be responsible for, standards for garden upkeep, and rules regarding what fertilizers and pest management practices are allowed in the garden. At some gardens, involved gardeners are asked to sign an agreement to show commitment to the guidelines. Consider posting a copy of your guidelines in a visible location at the garden. For more tips and examples for developing garden guidelines (aka - agreement, contract) see *Resources & Appendices*.

Managing the Garden: Resident Garden Committee

Mountain View Apartments
48 units, individuals & families
St. Johnsbury, Vt
Rural Edge property

At Mountain View Apartments, Rural Edge (property management company and nonprofit) worked with residents to create a “resident garden committee.” The committee is comprised of a small group of interested gardeners who oversee management and non-financial decision-making about the garden. An example of how the group works with Rural Edge:

For dealing with neglected community garden plots, the group decided on a three-strike rule:

- 1) If a garden is untended, the committee contacts Rural Edge staff who then reaches out to the gardener of concern to ask what support is needed to get them back on track;
- 2) The resident gets two more chances to upkeep her/his plot;
- 3) If still neglected, the bed goes back to the committee who decides how the abandoned plot should be used (typically it will go to another interested resident or be dedicated as a food shelf garden).



- **How will you deal with conflict?** Garden guidelines and regular and clear communication are great ways to help prevent conflict in the garden. However, what do you do when conflicts arise? As a group, agree upon what your follow-through will be if guidelines are not being followed. Also discuss how you plan to address issues like interpersonal conflict. This is a great time to fall back on group agreements and tap into tools like conflict resolution for working through problems. To learn more about conflict resolution check out *Resources & Appendices*.
- **How will your group discuss the above and other garden-related topics?** Whether you meet regularly or communicate more informally, it's necessary to have some system in place for addressing the above topics. Determine as a group what frequency and method (in person, email, phone, Facebook group, etc.) will work best for those involved. Consistent communications will help build solidarity and community in your group.

Resources: *Making the Most of Meetings (BNAN)*, *Sample Group Agreements (Seeds of Change)*, *Community Garden Guidelines (VCGN)*, *Mountain View Garden Agreement (Rural Edge)*, *Avenue Apartments Garden Contract (CHT)*, *Community Tool Box, Chapter 20, Section 6, Training for Conflict Resolution (University of Kansas)*





2. Why do you want a garden or edible landscaping at your site? What are your goals?

Asking these questions of your stakeholders (i.e. residents, property management company, etc.) is central to determining the direction of your project. Here are several examples:

1. If your group determines that the number-one goal of your garden is for residents to **get to know each other better**, establishing backyard gardens that are organized by a small group of close friends will not bring you any closer to your goal. The interest for interaction tells us that a better model might be garden beds that are grouped together, involving a diverse group of residents, with garden-based activities that bring people together.
2. If your primary need is **food access**, your gardening or edible landscaping should contain vegetables and fruit that will grow well in your climate, that residents are likely to eat, and that will add to the food security of the property and its residents. Building in regular hands-on garden time and educational programs for using garden produce will also contribute to the success of this model.

Think beyond veggies

When asked what they wanted to grow at their housing site, residents at a senior housing community in Glover said “Pears!” The group is now managing a small grove of pear trees. At Upper Valley Haven, an emergency shelter in White River Junction, Vermont (see above), apple trees provide delicious fruit for meals and the on-site pantry, as well as shade and beauty to the landscape.



- To address a goal of **property beautification**, your model will need to reflect the need for regular and proper maintenance/upkeep of the gardens or edible landscaping, placement of the garden beds in visible locations, and choice of plantings that will add to the beauty of the site at different times of the year (i.e. different bloom times, include perennials, etc.). Your property grounds staff will need to be on board to support upkeep of certain plantings and infrastructure.

Refer to *Resources & Appendices* for a goal-setting tool to clarify and organize your group’s goals. Keep in mind: the purpose and goals of your garden may shift over time—remain flexible and stay aware of the shifting needs and desires of your garden group.

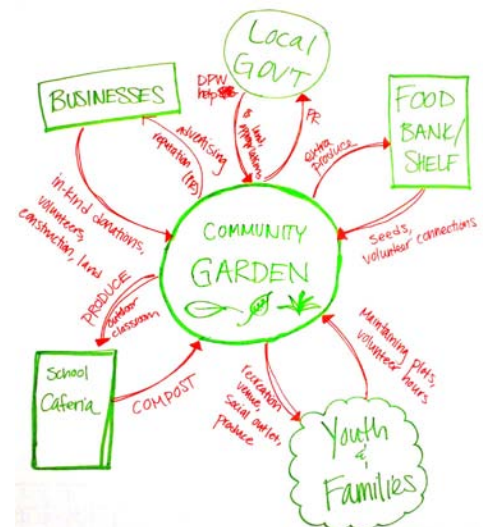
To assess interest and need, start with a basic survey (see *Resources & Appendices* for sample survey) sent to all residents to determine if they are even interested in having a garden or edible landscaping onsite. Follow up with a meeting of interest—this will begin to narrow down your core planning group. In this meeting and following meetings discuss what residents are hoping to get out of the garden, goals, and desired features. The number of residents interested in and committed to gardens and/or edible landscaping will also be a factor in the type and size of the gardens/plantings you establish on site. Since interest may increase over time, choose a site and model that has the potential to expand if needed. For a guide to deciding the best model for your site go to page 24, *What Model is Right for Your Site?*

Resources: *Setting & Assessing Your Garden Goals worksheet (VCGN)*, *Harrington Village Resident Survey (CHT)*, *Establishing a Garden Project (VCGN)*, *Planning & Development Checklist (VCGN)*

3. What assets and opportunities are available that could benefit this project? What potential constraints and obstacles do you foresee for this project?

Before your group launches into planning garden bed size, fruit tree location, or where the compost will be delivered, consider using some of the following analysis tools. This may save you time, money, and other resources in the long run. For examples of common challenges in gardens/edible landscaping at housing communities check out page 44, *Problem-solving*.

Asset mapping: This simple visual tool will help your group expand its thinking around who can be involved in the garden project, what they can contribute, and what they



get out of their involvement. An asset map can ensure you're taking advantage of the resources available in your community and developing reciprocal relationships that will last. Check out *Resources & Appendices* for an example of how to create an asset map and sample questions to ask your group.

SWOT analysis: SWOT Analysis is a technique that can be used to clarify the Strengths and Weaknesses of your project and housing community, and help you identify both the Opportunities that can help you choose the direction of your project and the Threats that may become obstacles in your project's development or the garden's management. The Community Tool Box, a University of Kansas online resource, has tools, examples, and guiding questions to help you make use of this planning tool as well as many other community-building resources (see *Resources & Appendices* for the link).

What's most valuable about both of these tools is that they get at one of the core elements of gardens at housing sites: every community is unique, with its own set of opportunities and challenges. Take the time to consider the unique culture of your housing community and keep this in mind throughout the process of development and when planning for management of your gardens.

Resources: *Asset Mapping worksheet (VCGN), Community Tool Box, Chapter 3, Section 14, "SWOT Analysis" (University of Kansas)*



Gardens grow in unexpected places at the Upper Valley Haven in White River Junction, including curbside plantings.

“You can't have a blanket approach to developing gardens at different sites. You need to tailor to the site you're working with. Each property and process is different.”

— Dan Haycook, Community Engagement Specialist, Rural Edge, Lyndonville, VT

4. What model is right for your site?

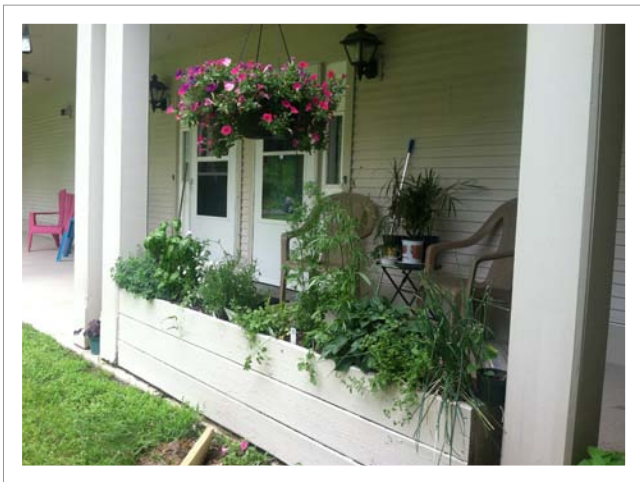
There are many different forms your gardens can take at your housing site. Which model(s) you choose will be determined by your goals, resident interest and needs, opportunities and constraints of the physical site itself, funding, and other requirements such as zoning, maintenance, and property management requests. Check out the following chart for more details on each model.

MODEL	POTENTIAL STRENGTH	POTENTIAL CONSTRAINT	SPECIAL SITE REQUIREMENTS	POTENTIAL ASSOCIATED GOALS
Community Garden: individual garden plots in one common location with shared infrastructure	<ul style="list-style-type: none"> shared resources for all gardeners individual plots address different needs and gardening styles 	<ul style="list-style-type: none"> coordinating the needs of a variety of gardeners 	<ul style="list-style-type: none"> site has at least 1 large area for installing community garden and required infrastructure 	<ul style="list-style-type: none"> community-building education food security growing own food getting outdoors beautification ecological benefits
Community Garden: communal garden plots in one common location with shared infrastructure	<ul style="list-style-type: none"> shared resources for all gardeners great for residents who want to connect directly with their neighbors all gardeners share the work and the harvest 	<ul style="list-style-type: none"> management plan needed to coordinate work, harvest, and who gets the food 	<ul style="list-style-type: none"> site has at least 1 large area for installing community garden and required infrastructure 	<ul style="list-style-type: none"> community-building education food security growing own food getting outdoors beautification ecological benefits
Backyard/Unit Gardens: gardens are located directly next to units and are used and managed only by residents of each unit	<ul style="list-style-type: none"> good for sites where not much oversight and project development support available 	<ul style="list-style-type: none"> apartment turnover first resident interested, next resident not interested 	<ul style="list-style-type: none"> site has space for growing located directly next to units *If limited space, this could be containers 	<ul style="list-style-type: none"> food security growing own food getting outdoors ecological benefits

MODEL	POTENTIAL STRENGTH	POTENTIAL CONSTRAINT	SPECIAL SITE REQUIREMENTS	POTENTIAL ASSOCIATED GOALS
<p>Edible Landscaping: trees and shrubs are integrated into the landscape; often times includes perennial vegetables and fruits (bushes, trees, vines)</p>	<ul style="list-style-type: none"> • perfect for groups interested in fruit and other edible perennials, • low level of maintenance needed after plants are well-established 	<ul style="list-style-type: none"> • establishment period requires a high level of maintenance • must be on top of care and harvesting at key points; long-term investment in care of perennials 	<ul style="list-style-type: none"> • landscaping space available 	<ul style="list-style-type: none"> • education • food security • growing own food • beautification • ecological benefits



Your garden can take many forms: community, backyard or edible landscaping. Clockwise from top left, Harrington Village, Charlotte, Vt; Franklin Square, Burlington, Vt; Upper Valley Haven, White River Junction, Vt; and Whitney Hill Homestead, Williston, Vt.



A Diverse Model

Green Acres
49 units, families
Barre, Vt
Barre Housing Authority

“At Green Acres Housing we have started to shift the community garden design to be more of a food forest, adding perennial crops each year. We replaced some annual garden beds with several fruit plants donated by the Metro Way Community Garden – and now have an established elderberry patch under planted with chives and yarrow, neighbored by a hops trellis. Another area of the garden is the plum grove, includes gooseberry, currant and husk cherry, and is underplanted with strawberries.

Each year we are expanding the perennial medicinal herb beds to grow more neighborhood apothecary ingredients to use fresh or to dry. These aromatic and healing herbs also attract pollinators, increase biodiversity, and are a draw for kids and adults who want to connect their garden more closely to their personal health and well being. Gardeners are grateful to do less weeding and more mulching to maintain these parts of the garden, so it’s a win for everyone.”

– Sandra Lory, Good Food Good Medicine Program



5. What activities are appropriate for your housing community?

What kinds of hands-on education is needed to support gardening success for residents? Are there individuals or groups of residents (children, seniors, non-gardeners) not involved in the garden who you’d like to find a way to engage? Examples of potential activities include: summer gardening and cooking education programs for youth, cooking demonstrations for families, community meals with produce from the garden, and garden education workshops for adults. These activities have been shown to positively address some common issues that arise at community-based gardens. Below are a few scenarios to help you think through how activities can support the success of the garden and/or plantings and enrich the experience for residents.

Scenario 1: *Resident involvement in the garden is low. Some residents express that they are hesitant to get involved with the garden because they don’t know how to use the vegetables or are new to gardening.*

At Highgate Apartments in Barre, Vt., Community and Social Services Coordinator Doug Hemmings says that “food is a common denominator” for the housing community. The Highgate Nonprofit is the fiscal sponsor and host of Good Food Good Medicine (GFGM), a Barre-based food justice program that uses the community garden for educational meals. The group brings a mobile kitchen out to the garden that includes a wash bin, a chopping counter, and a propane-fired wok, and together with residents they harvest from the garden, wash the vegetables, cook a meal, and eat it in the garden. This event draws a lot of attention to the garden and gives people the skills and perspective to cook with garden vegetables. GFGM and Doug also collaborate to host other food gatherings that incorporate community garden produce, such as community meals and a community pizza night, using NOFA-VT’s mobile wood-fired bread oven. Beyond getting people more interested in the garden, these gatherings bring residents together in a fun and joyful environment.

Scenario 2: *Gardeners are having difficulty keeping up with their garden plots. Garden beds are getting weedy and causing issues with managing the space.*

Before weedy gardens could become an issue, Champlain

Housing Trust Community Relations Specialist Anna Herman setup timely educational workshops for gardeners to give them the skills needed to manage their space. The first workshop was a basic gardening tutorial with information specific to growing in raised beds. Master Gardeners and other volunteers assisted with planting to give gardeners further guidance and returned later in the season to assess the garden and give advice. Design workshops for the skill level of your gardeners, for example basic weed identification for beginner gardeners and pest management for experienced gardeners. Building skills and understanding builds confidence and gardener ability to manage plots. Other strategies for managing unkempt plots include regular garden work parties or matching up experienced gardeners with inexperienced gardeners. See *Gardening, Cooking, Nutrition Education* for more tips on providing education.

Scenario 3: *Youths hang around the garden, but don't have anything to do. Resident gardeners are concerned that kids are trampling on beds and wasting water.*

At Franklin Square Apartments in Burlington, Vt., the property manager and resident staff established a children's garden within the plot-based community garden. With the support of a Gardens For Learning grant they developed a weekly program that teaches how to grow and cook garden produce. With a designated garden space, youth are able to develop a sense of ownership over the garden, which has shown to increase respect and investment in care for the space. Accompanying your children's gardening space with even basic educational programming equips youth with the skills to care for the space, the structure to learn about gardening, and the experience of growing something they then get to eat. See *Gardening, Cooking, Nutrition Education* for more info on VCGN's Gardens for Learning program and other educational programming for gardening with kids.



Gardens For Learning

You don't have to reinvent the wheel! Are there existing programs or regular events that take place at the housing community which gardens could fold into? Community meals, on-site food shelves, summer meal programs for youth, movement activities for seniors, and open house events are a few examples of residence-based programs and events that compliment gardens.

Highgate Gardens



A Flexible Model

Highgate Apartments
120 units, individuals & families
Barre, Vt.
Highgate Housing L.P.,
Maloney Properties Inc.

In 1995, residents at Highgate Apartments were asked if they would be interested in gardens and the answer was overwhelmingly “yes,” with a strong request to have them located directly next to their units. Management was on board, but concerned about the turnover of residents and wondered what would happen when the next resident arrived and was not interested in gardening and upkeeping their unit’s garden. Their solution was to build beds that could be easily moved; held together with removable rebar rather than screws and nails. Volunteers and staff built 22 raised bed gardens over two years for interested tenants at Highgate.

Over the years the system proved relatively successful; however management was still concerned about a few issues. The beds were beginning to wear out from age and movement and some of the residents who said they wanted beds did not keep them well-maintained. Management was concerned about the “curb appeal” of the gardens—weedy plots detracting from the look of a well-cared-for environment. In 2005, Good Food Good Medicine was established and started a community garden on the property with a combination of communal, individual, and educational plots. Staff determined a new system for fulfilling garden requests. Now, if a resident was interested in having a garden bed installed next to their unit, they first needed to demonstrate their commitment and ability to care for a garden by being a part of the community garden for two years. This hybrid and flexible model for Highgate’s gardens takes into account both resident and management needs and desires while meeting the site’s goals for increasing fresh food availability at the housing community.

6. How will the gardens be managed and cared for?

The types of management and care needed for your garden will depend on: 1) your goals for the project; 2) project opportunities and constraints; 3) the types of plantings you choose (perennials vs. annuals); 4) the garden model you’re using (community garden, unit-based gardens, edible landscaping); 5) and the structure and layout of the gardens (raised beds, pathways, etc.). On the next page is a list of maintenance tasks common to most housing site gardens with a variety of ideas for dividing roles and responsibilities. Remember to involve residents in all aspects of design and decision-making. (See *Resources & Appendices* for a seasonal, in depth list of garden maintenance and organizing tasks.)

Options for caring for garden plantings (i.e. planting, watering, weeding, harvesting, pruning, etc.):

- Individual residents or families in charge of their own garden plot.
- Residents share maintenance of gardens through a rotating schedule or regular work parties.
- Housing site staff or volunteers (non-resident) maintain gardens. This model is not recommended for community gardens at most housing sites, but can work well for edible landscaping management and garden care at transitional housing sites (i.e. homeless shelters).
- A combination of individual and communal maintenance is appropriate for a garden space with personal plots and shared perennial plantings.



Vermont Edible Landscapes

Options for upkeep of common spaces (i.e. pathways, fence line, etc.):

- Housing site maintenance/grounds staff mow or trim common spaces. See the section on site design and planning on page 35 for tips on developing your garden space for ease of management.
- Residents share care of common areas. Typically management companies will not want residents operating lawn mowers on the property, although they may consider reel push mowers (manual, non-motorized). Resident management of common areas will be more successful if pathways are covered with a weed barrier (i.e. landscape fabric, burlap sacks, etc.) and wood chips or other pathway material.

Options for repair and construction projects:

- Maintenance/grounds staff are often equipped and willing to build and repair garden infrastructure, such as raised beds and fencing.
- Residents hold work parties to repair and improve the garden. This is a great time to pull in your “support system,” mentioned on page 15 under *Who should be involved?*

Resources: *Sample Garden Maintenance Activities Schedule (BNAN), Garden Organizer Monthly Tasks (adapted from BNAN), Upper Valley Haven Garden Volunteer Handbook (UVH)*

Types of Plants

- Annuals - Plants that live their entire life cycle from seed to flower in one season. Every part of the plant dies back annually. These can include vegetables like tomatoes, peppers, and carrots, flowers, etc.
- Perennials - Plants that continue their life cycle from one season to the next. These can include vegetables like asparagus, herbs, and fruit like strawberries, blueberry bushes, apple trees, etc.

7. How will the harvest from the gardens be used?

Depending on the needs and desires of residents and the goals of your garden project, garden produce can be used in a number of ways:

- **Residents take home** - residents take home their own harvest or lay it out in a common space for other residents to enjoy
- **Resident group meals** - produce used to supplement on-site meals for residents
- **Educational programming** - produce used in cooking classes, taste tests, or other educational activities
- **Food shelf** - produce grown for on-site or nearby food shelf used by residents
- **Celebrations** - residents plant vegetables to be used in housing community celebrations, like an on-site harvest festival or other community event

Keep in mind that some residents will not know how to cook from scratch using raw ingredients and will benefit from ongoing gardening and cooking classes.



Gardeners share their harvest with a sign that says, "Free Lettuce. Help Yourself." at Ledgewood Apartments in Brattleboro, Vermont. Resident staff cook a meal from garden produce to serve for resident youth at Franklin Square in Burlington, Vermont.



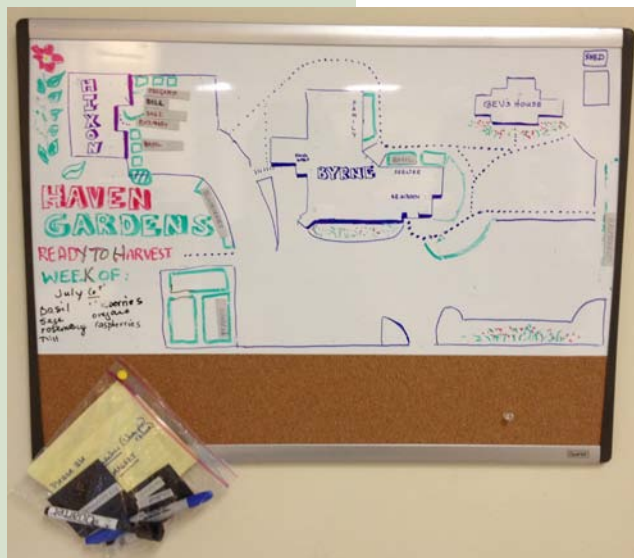
A Unique Model

Upper Valley Haven

Adult housing - space for 20 individuals; Family housing - space for 8 families; Seasonal shelter
White River Junction, Vt.

Upper Valley Haven, an emergency shelter, food shelf, and service coordination provider for homeless and low-income individuals and families, creates a welcoming environment for residents and others who use their services by landscaping with edibles. Sara Kobylenski, the Haven's Executive Director, explains that value of the gardens is based in the philosophy that "Place and space matter. What you see and smell impacts how you react ... With beauty and cleanliness people are more accepting, respectful, trusting, honest, and feel safe." In addition to providing support and a positive environment at the Haven, the gardens supply the on-site food shelf and youth cooking programs.

A team of Extension Master Gardener (EMG) volunteers maintains the extensive gardens surrounding the entire property, including both perennial and annual vegetables and fruits. This core group of six to eight volunteers maintains the gardens twice weekly. Two of the volunteers are the garden leaders, organizing the weekly work parties. They have developed an extensive volunteer handbook to bring new volunteers up to speed on the site's history and how things work each year (see *Resources & Appendices*). Additionally they have recruited the support of Haven staff and volunteers to harvest and use the ripe produce; a white board in the kitchen with a map of the gardens has moveable parts indicating what's planted where. The EMG gardeners update the board every week during the growing season to show what's ready to harvest. Upper Valley Haven residents are encouraged, but not required, to join volunteers in the garden and to harvest directly from the beds for their own use.



New Crops = New Foods

Avenue Apartments
33 units, multi-family
Burlington, Vt.
Champlain Housing Trust

At Avenue Apartments, they received all of their plants and seeds for the garden through a donation from a local nursery. The donation made it possible for residents to participate in the garden, who would not have been able to handle these costs on their own. The group received a variety of vegetables and herbs from the nursery's remaining stock. At the end of the season the garden coordinator noticed that because the residents didn't choose these plants themselves, many were unsure of how to cook with them. Their solution: "One of our goals for this coming summer is to incorporate cooking lessons in the gardens so that people know how to use crops that are unfamiliar to them. Not only will this introduce them to new and healthy meal alternatives and increase their awareness, but it will also reduce garden waste."

– Anna Herman, Community Relations Specialist, Champlain Housing Trust



8. How will you engage residents in the garden?

You've established a core group of resident gardeners, but how will you get more people involved? Most community gardens have systems for determining who will be involved each year. Some groups use applications for people interested in getting involved (see *Resources & Appendices* for an example); other groups have more informal processes, such as a sign-up board posted in the housing community room. While some groups do well with a more informal arrangement, a word of caution: Make sure whatever sign-up system you choose is accessible, usable, and communicated to all residents.

How will you let people know about the opportunity to get involved? Determine how residents in your community find out about things and use that knowledge to develop an outreach plan. An initial survey about the gardens project will let people know of the opportunity and follow-up communications will be needed so they know how to get involved. Use a phone tree to remind people about meetings and special events. A few ideas for follow-up: hold regular meetings, post fliers around the property, and host events in the garden. Make sure there is a sign at the garden that lets people know how to get involved. Also, communication at housing sites often happens by word of mouth—find your garden advocates and most vocal residents and have them spread the word! See the section below, "Problem-solving," for more tips on increasing participation in your garden.

Resources: *Mountain View Resident Garden Application (Rural Edge)*

9. How can you build a plan for the garden's sustainability?

Plan for the long-term success of your gardens from day one. Here are some tips from experienced housing site garden coordinators to increase the success and sustainability of a garden project:

- **Plan big** - Leave room in your site design and long-term planning for the expansion of the garden project. Incorporate fun and innovative ideas from all stakeholders.
- **Start small** - Divide your plans for phased implementation. In your first year (maybe 2-3 years) construct a basic garden to determine sustained commitment and interest. Each phase should be planned for easy management with the resources available.

- **Establish an annual garden budget** - Even after the first season there will be some funds needed to upkeep the gardens and for new developments. See page 41, *What financial and material resources do you need to be successful?* for more info on funds needed.
- **Involve all stakeholders from the beginning** - See above section on “Who Should be Involved?” for a list of potential stakeholders.
- **Involve residents in garden planting, care, and harvest** - Ultimately, a garden’s sustainability depends on continued interest and involvement from the ultimate users of the produce—the residents. Residents who pick what they want to grow and invest in caring for the plants throughout the season will be more likely to eat and use the harvest and to continue to garden in the future.
- **Assign a dedicated property staff to the garden** - No matter what garden management system you choose (see above section, “How will the gardens be managed and cared for?”) it is essential for there to be someone on the property management staff who oversees the project and creates the linkage between residents and property management. As tenants come and go from the property, continuity and support for the project will be maintained by having this position institutionalized within the property management company.
- **Document and keep records** - For further embedding of the garden project into the property and company document your successes and challenges with photos and notes and keep thorough records. These records can be used to guide future staff and gardeners, as well as to help your group advocate for the future of your garden.



Champlain Housing Trust

All ages participate in planting day at Harrington Village in Shelburne, Vermont.

STEP 2: Design & Plan Site



Harrington Village garden beds laid out, waiting to be filled with soil.

Once you've gathered your project team and decided on how your project will be structured, it's time to plan for how you will get it accomplished. Below are some considerations, tips, and tools for designing your landscape, gathering the resources, and planning for your first work party.

Considerations when developing your Edible Landscape:

- Start small
- Make sure plantings are easy to access
- Choose a site with 6 to 8 hours of sunlight and access to water
- Plan for compost and other soil amendments
- Look for deep well-drained soils (modify soils if necessary)
- Choose a long-term planting site
- Avoid areas with existing vigorous or opportunistic "weeds"

Is your property established or new?

If you are planning for gardens at a **new property**, it may be possible to incorporate gardens and edible landscaping into design and irrigation plans, as well as set aside land for community gardens. This early stage is a great time to advocate for planting perennial edibles rather than traditional landscaping plants, working your garden planning directly into the landscaping budget. If your property's company or nonprofit has its own building team, be sure to discuss plans with the director of property development. If the property development is hired out, consult with the person in charge of site design plans.

At an **existing property** you will need to investigate current spaces, such as lawns, greenways, or unlandscaped edges of buildings and walkways. Stay aware of opportunities during rehab or reconstruction projects for incorporating edible landscaping and gardens. Before moving forward with plans, reach out to the housing company or nonprofit's director of property development or someone else who knows the ins and outs of the site (i.e. underground sewage tanks, trees that can or cannot be removed, and other property limitations and opportunities). Creating gardens at an existing property also allows residents to be involved in the planning process. Residents can voice their needs and hopes related to the garden and edible landscaping, and also give valuable feedback on foot traffic and other use patterns across the property.

In **either scenario**, make sure there is resident involvement and start with a basic plan for your gardens or landscaping based on what you already know about the property (i.e. space available). Then take your plans to the site's property manager for discussion and approval; this person should have a deeper understanding of the limits and opportunities of the site, requests of upper management, and permissions needed. At some point in this process, it is beneficial to consult with someone who has knowledge of establishing community gardens and/or edible landscaping to ensure your plans and goals are realistic.

What do you know about your site?

Before launching a garden/landscape project, there are several important things to learn about your site in order to choose the most appropriate locations for your annual and perennial plantings.

First Meeting - New Plans for Harrington Village

Harrington Village
42 units, multi-family
Shelburne, Vt.
Champlain Housing Trust

Champlain Housing Trust (CHT) designed their new property, Harrington Village, with gardens in mind. CHT Community Relations Specialist Anna Herman was given a map of the site that marked "gardens here." To review and discuss the plans, Anna had an on-site meeting with CHT's Director of Development, the property manager for Harrington Village, and a consultant from the Vermont Community Garden Network. Each person brought something different to the table. The Director of Development was in charge of design plans and knew what permissions would be needed (i.e. zoning, management, etc.); the property manager had an understanding of site management needs; and the consultant provided advice regarding garden design and possibilities for use. And everyone came with a different set of goals for the project. This initial meeting was crucial for gaining a common understanding, bringing vision and minds together on what has since become a successful garden project.





Champlain Housing Trust

Whether you choose to plant directly in the ground or in raised beds will depend on several factors, including: health and safety of existing soil, ability of gardeners to bend and kneel, a need for creating garden borders and defining pathways, and more.

Conducting a site analysis is important to do before planning your garden placement and design. (See *Resources & Appendices* for a tool to help you map and analyze your site.) For your site analysis your primary considerations will be:

- **Light:** At least 6 hours of direct sun daily.
- **Drainage:** Little to no standing water after heavy rains.
- **Slope:** Garden plots - as level as possible; edible landscaping - depends on the growing requirements for your plants.
- **Exposure:** Protected from high winds; Avoid low-lying frost pockets.
- **Surrounding vegetation:** Few or no trees, depending on what you're planting (shade-tolerant or sun-loving plants); Look out for problematic plants (i.e. poison ivy, stinging nettles, walnuts, hickories, etc.).
- **Pests & critters:** Pay attention to areas that may have garden pests and animals travelling through the site (deer, rabbits, woodchucks, skunks, squirrels).
- **Soil:** Test the soil for heavy metals and other contaminants. Visit UVM Extension's website to learn more about soil testing—how to take a sample and where to send it (find link in *Resources & Appendices*). Your soil test results (and accessibility) will determine if your garden should be in ground or in raised beds.

- **Water:** Ideally a close water source is available. Look for a spigot or potential for installing one on the side of the closest building. If financially and logistically feasible a spigot or pump in the garden or near your plantings is the best option to avoid hauling hoses and water lines getting in the way of grounds maintenance.
- **Safety:** Site promotes personal safety. If children are using the gardens/plantings, avoid parking areas and other unsafe areas. If digging, make sure you're not digging on a utility line - Call Dig Safe "811."
- **Accessibility:** Location and layout of site suitable for potential gardener population and for bringing materials (i.e. lumber, soil, compost, etc.) onto the site. Pathways should be 3-4 feet wide to allow for wheelchair access.
- **Size:** If developing community gardens, look for space large enough for the number of potential gardeners, garden infrastructure, a diversity of garden activities, and room for growth. If developing edible landscaping, look for space that will allow for long-term growth of plants (i.e. trees, bushes). In terms of growing space, you can get creative with the space available by using techniques such as vertical gardening, container gardening, rooftop gardening and other space-saving tricks. (See *Resources & Appendices* for tips on maximizing the harvest from small growing spaces.)
- **Ownership:** If the potential site is not owned by the property management company, find out who owns the site to see if you can rent or buy the land. Sometimes land owners will rent to community gardens for a minimal fee. Make sure to have a written agreement that includes a time frame for notification of any change of status for the property.
- **Visibility:** If possible, your gardens/plantings should be visible by residents. This will encourage involvement and interest, and also prevents produce theft and vandalism.
- **Land use:** Pay attention to how residents and staff use existing spaces. For example, avoid placing gardens/plantings directly where people walk, in recreation or children's play areas, where snow is plowed in winter months, and other heavy traffic areas.
- **Seasonal changes:** Observe the seasons and take into account such factors as the changing angle of the sun, trees dropping leaves and nuts, and snow removal location.



Vermont Edible Landscapes / Danielle Allen

When planning your garden, a drawing can help you visualize what you want it to look like.

Resources: *Site Analysis: Creating a Base Map (VCGN), Establishing a Health Community or School Garden Project (VCGN), Soil Testing (UVM Extension), A Guide for Gardening in Small Spaces (Red Wagon Plants)*



Perennial plantings and gardens benefit from inclusion of a diversity of plants. For example, strawberries can make for a great ground cover for blueberries.

What else should you consider when designing the garden/edible landscaping?

Once you've completed a garden site assessment using the above checklist you can begin to design your garden. Some things to consider:

- **Revisit your garden goals** - Consider what design features will support your needs, goals, opportunities, and challenges of the site (see list of potential garden features below). For example, raised beds are a great way to address soil health challenges (such as rocky substrate or contamination) while also meeting the needs of gardeners who may have difficulty bending low and defining garden borders for young gardeners.
- **Review zoning and other land use considerations** - Familiarize yourself with local zoning regulations—some municipalities may need to approve your fencing or tree planting plan. Also, determine if your property management company has any land use guidelines you'll need to follow.
- **Get input from residents and property staff**- Involve residents in as much of the design process as possible to build ownership. Property management will likely want some say in things like “curb appeal”—how the garden fits into the landscape and outward appearance of the property. And don't forget to check with the maintenance/ground crew to determine pathway widths for mowing and maintenance.

Benefits of On-site Composting

- Reduces annual costs of purchasing compost to enrich soil
- Provides a space for managing garden/landscaping debris
- Introduces the concept and practice of composting to residents who will be required by law to compost starting in the year 2020

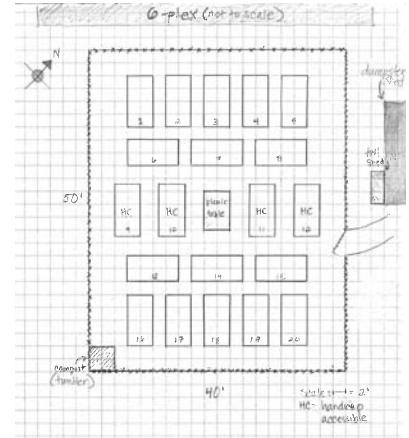
- **Determine your budget for garden/landscape development** - see next section on “*What financial and material resources do you need to be successful?*”
- **Develop a timeline for accomplishing the development of the garden/landscape site**- The timeline for your project will be determined by the scope of the project (e.g. half-acre community garden, a few fruit trees, planters outside of housing units), whether it’s a new development or existing housing site, and any external or internal planning factors (i.e. funding timeline, zoning permitting, weather, etc.). Start planning early, in the fall or winter before your first season if you can, to leave adequate time for involving all stakeholders, community building, cultivating ownership, finding the resources you need, and allowing for setbacks that might arise. In the sample timeline from Champlain Housing Trust’s new Harrington Village property (below), the funding had already been secured and the garden location had already been determined by the Development team during site design and development. This is just one example of the steps and timing it takes to pull off a successful garden launch.

Sample Timeline - New Property (Harrington Village, Champlain Housing Trust)

- April 1st** – Met at the garden site: Community Relations Specialist, Property Manager, Director of Development, the Maintenance Crew who would be building the beds/fence, and a non-profit garden consultant (VCGN)
- April 3rd** – Passed out garden surveys to tenants, due April 15th, to get a head count of how many wanted to participate (a copy of the survey can be found in Resources & Appendices)
- April 15th** – Compiled survey results (to determine how many beds to build), scheduled tree removal
- April 23rd** – Finalized garden bed design with Property Manager and Maintenance, drew out scaled site plan, and went to Shelburne planning zoning board to check on any required permits
- April 24th** – Tree removal completed, ordered wood for beds, started writing donation requests
- May 4th** – Confirmed meeting room location (to have initial meeting with tenants)
- May 6th** – Ordered soil
- May 7th** – Passed out meeting notices
- May 10th** – Fence and bed construction began
- May 19th** – Had initial meeting with tenants to go over plans, hear their ideas/suggestions, etc.
- June 3rd** – Garden workshop for tenants; picked up tool shed, picnic table, and compost; met with garden consultant (VCGN) to review site plan and made modifications to allow more space between beds
- June 4th** – Completed beds, put together and organized tool shed, and started arranging beds
- June 5th** – Finalized bed placement on site, soil delivered, gathered wheelbarrows and shovels
- June 6th** – Opening day with work party to fill raised beds and plant starts and seeds!!

Your Site Plan: Based on your site assessment and the above considerations, create a landscape site plan that lays out landscape and garden features. Some basic features:

- Garden Beds
- Pathways
- Watering System
- Fencing and Other Critter Control
- Shed
- Sign
- Compost
- Relaxation and Gathering Spaces
- Communication and Education Areas (i.e. bulletin boards, outdoor classrooms, etc.)
- Delivery area for materials (i.e. compost and soil)



When designing your gardens/landscape, plan for the big picture — everything you might want to see someday — but start small. Divide the site development into multiple phases, as budget and time allows.

Resources: *Physical Garden Features (C&S/Weiland)*, *Sample edible landscaping design (Meghan Giroux)*

Establishing Accessible Gardens:

When laying out your garden, determining bed dimensions, and generally planning your garden, take into consideration American Disabilities Association (ADA) Standards for Accessible Design to ensure your gardens are accessible for all residents. Raised beds are a great way to ensure accessibility of gardens based on a variety of needs. In general, garden beds should be 3-4 feet wide, if accessible from both sides, and 2-3 feet wide if accessible from one side only. Beds about 2 feet high allow for wheelchair access and 30-36 inches tall beds will reduce the need for bending over while gardening from a standing position (depending on gardener height). Raised beds can also be built that are elevated about 3 feet off the ground with legs or blocks—ideal for both wheelchair accessibility and for minimizing the amount of soil needed. If gardeners need to sit while gardening you can build raised beds with a wide edge for sitting. Pathways between beds should be at least 3-4 feet wide for wheelchair accessibility.



What financial and material resources do you need to be successful?

Most of your garden-related costs will be up front, as you're building the site and putting in the plantings. Based on your site assessment and garden/landscape design plan, **make a list of supplies, materials, and other resources needed.** See *Resources & Appendices* for sample garden and edible landscaping cost sheets that estimates basic needs and associated costs for setting up a site. After the initial setup, costs will be minimal; however, **a budget should be developed annually** to address educational programming, outreach and incentives for resident participation, basic site upkeep, future repairs and expansions, and regular expenses, like water. Some sites charge residents a fee for garden use to cover annual costs. Additionally, some community gardens choose to contribute supplies like basic tools, plants and seeds for their gardeners, while others ask gardeners to provide their own.

Ideally a budget will also include **a stipend or other compensation** for the person/people who will play a primary role in coordinating the garden's development and management. If the site coordinator is a paid property staff person, discuss with property management how to include garden coordination in their job description, so that they can be appropriately compensated for their hours involved with the garden.

Fundraising strategies should match your garden/landscape's stage of development. Examples of fundraisers for housing site gardens/landscapes range from a grant proposal for establishing the site to an annual tag sale organized by residents or property management staff. Fundraising is another good time to tap into your network of support to seek donations, discounts, and in-kind services. With the right connections it's amazing how much of the garden/landscape project can be established through the donation of materials, supplies, time, and skills. Also, pay attention to strategic partnerships that will save you money and other resources in the long-run. See *Resources & Appendices* for great Vermont companies and organizations that can help you with seeds, tools, and other supplies for your garden.

Lastly, **ask for a "line item" for gardens in the property's annual budget.** Review *Introduction*, for research on how gardens impact housing communities. This information will help you advocate to property management for why gardens should be established and why the property management company should support them. Some budget areas that can include housing site gardens are community development/relations, resident enrichment, and landscaping/grounds.

Resources: *Sample Garden Cost (VCGN)*, *Tips for Approaching Businesses (Nardozzi)*, *How to Build a Raised Bed (VCGN)*, *Fundraising for Success (VCGN)*

STEP 3: Plant & Tend to Your Garden



Vermont Edible Landscapes

Community Gardens — A Year-round Effort

Continue gardening efforts through the winter months with activities like seed starting workshops and garden planning and layout. This time is valuable for planning for next season and offers an avenue for residents to continue to build their garden community, making it less challenging to start up again each spring.

Congratulations! You've made the commitment, your infrastructure is in place; now it's time to plant. If your garden/landscape is being managed by residents in a community garden and/or you are establishing edible landscaping or other perennial plantings, survey residents about what they enjoy eating and growing, and what is hard to find or expensive to buy. This list will help you determine what to plant.

For **individual plot gardens**, the residents will plant what they want. For **common beds**, unless you're dealing with large trees or sensitive edible landscaping areas, involve residents in planting rather than having staff or volunteers do it for them. This way residents are actively choosing what to plant, invested in caring for it throughout the season and ultimately harvesting it to eat and use.

In regards to **planting perennials**, refer to *Resources & Appendices*, “*Installing Your Edible Landscape*,” a comprehensive guide for planning, designing, planting, and caring for your edible landscape.

For more tips on how and when to plant, planting seeds vs. plants, how to care for your garden, and when to harvest, *Resources & Appendices*.

Resources: *Installing Your Edible Landscape* (Meghan Giroux), *Seed Starting Tips* (VCGN), *When to Harvest Your Vegetables* (Archibald Neighborhood Garden). *Recommended books:* *Edible Landscaping* (Rosalind Creasy), *Designing and Maintaining your Edible Landscape Naturally* (Robert Kourik), *Gaia’s Garden* (Toby Hemenway), *Edible Landscaping with a Permaculture Twist* (Michael Judd)



Ideas for Communal Sharing Beds

(from Erica Feinberg, *Good Food Good Medicine Program*)

Keep in mind maintenance, ease, space, abundance, use (immediate, individual, community, and preservation).

- **Kale** is easy to grow. We harvest ours up until Thanksgiving!
- **Lettuce**, mesclun mix, mustard, and other greens are all great things to plant in successions.
- **Roots** (carrots, beets, turnips, etc.) are good for storing through the winter.
- **Pumpkins, squash, cabbage, and broccoli** are a few examples of plants that take up a lot of space. To maximize your personal growing space, grow things that take up a lot of space in communal plots for sharing. However, if you want a lot of something you might want to grow your own too!
- **Potatoes** are easy to grow in a vertical potato structure.
- **Communal Preservation Projects** - Cucumbers for pickles, green beans for dilly beans, zucchini for zucchini relish, cabbage for sauerkraut...the list goes on! Think about how much work goes into preservation and how having a community event can build relationships, be fun, and efficient!
- **New crops** can be planted that people want to try but aren't familiar with. You can all learn how to grow, harvest, and cook them together.

At left, Garden educator Erica Feinberg works with a young gardener to harvest yarrow, one of a variety of perennial and annual medicinal plants in the communal plots at Highgate Community Garden.

Ongoing Considerations: Problem Solving, Evaluation, Celebration

Problem-solving

Most issues that will arise in the garden/landscape can be prevented and addressed through a well-laid plan and open, honest, and regular communication. Make sure there are clear and accessible lines of communication among gardeners, between the garden coordinator(s) and gardeners, and between gardeners, garden coordinator(s) and property management. Even so, issues will arise from time to time in the garden. Below are some common challenges and examples of successful and creative ways gardens have addressed them.

Low participation - Common reasons for lack of participation by residents include lack of time, insecurity about not knowing how to garden, being unfamiliar with cooking and eating fresh vegetables, and uncertainty about how to get involved. Don't assume you know the reason—talk with residents to find out why they're not participating in the garden and what you can do to support them. Here are some ways that garden coordinators have addressed participation:

- **Engage through activities** - Depending on who you want to attract to the garden (children, seniors, families, residents in general), link the garden to activities that will engage people, such as a “garden camp” for kids in the summer months, cooking demos in the garden, community meals featuring garden vegetables, and hands-on garden/landscaping workshops. Scheduling activities at consistent times and setting up a system for reminders will increase participation. See the above section, “What activities are appropriate for your site and will help you achieve your goals?” for real housing site examples and *Gardening, Cooking & Nutrition Education* for tips for providing on-site educational programming.
- **Outreach, outreach, outreach!** - See page 32, *How will you engage residents in the garden/landscape?* for outreach tips.
- **Find the right model for residents** - If it seems that residents want to garden, but just don't have the time, consider setting up communal gardens with a rotating schedule for care, perennial gardens that don't involve much time commitment, or a buddy system for managing individual plots. See page 24, *What model is right for your site and will help you achieve your goals?* to find the right model for your residents and site.

Theft - Unfortunately, produce theft is a somewhat common issue in community gardens and can be very discouraging for gardeners who have invested time, energy and resources into their crops. To understand the motivation behind garden theft is a challenge, but it is worth your time and effort to figure it out. Reasons for garden produce theft range from a misunderstanding of who the vegetables are intended for, to hunger and food insecurity, to someone trying to play a trick by targeting a personal garden plot. How to address it?

- **Signage** - Some gardens post signs that say something to the effect of “These gardens are cared for by participating residents and families. Residents work all season to grow these vegetables. Please leave garden vegetables for them. Interested in getting involved? Contact: (phone number)”
- **Community harvest** - Alongside the above signage, some gardens plant other fruits, vegetables, and flowers specifically for any passers-by to take. Additional signage is used to let people know, “These fruits/veggies are for you! Take what you will use and leave the rest for your neighbors.”
- **Communication** - Prevent and address misunderstandings about use of garden produce by laying out your model for involvement (i.e. personal, communal, etc.) in garden outreach. Also, let people know how they can get involved.
- **Garden guardians** - Place your gardens in a public location or at least within sight of housing. There are almost always residents who keep an eye on the property. They are your allies and watchful eyes for suspicious activity in the garden!
- **Fencing** - Beyond keeping out animals, fences can also prevent people from easily entering the garden or simply create a psychological barrier. While this strategy can be effective it can also backfire by keeping people out of the garden who you want to be involved. If setting up fencing, use friendly, open fences or living borders of edibles or flowers for community harvest.



A sign at San Rafael Community Garden in Denver, Colorado, advertises to the local community about their garden's Neighborhood Sharing Garden—a garden grown along the edges of their garden for neighbors to harvest from and enjoy.

Vandalism - Many of the same strategies for theft can be applied to the issue of vandalism. Be aware that garden vandalism often stems from a lack of understanding about how the gardens are used or a lack of investment in the project. The most common culprits tend to be youth residents with too much time on their hands and nothing to do in the summer months. Refer to the above tips on addressing *Low participation* for ideas on engagement.

Garden/landscape upkeep - Weedy plots are a major contributor to plot abandonment and disagreements between gardeners. Over-ripe unharvested fruits and vegetables can cause unwanted messes, become a breeding ground for plant disease, and, in the case of fallen fruit, attract bees to common areas.



A sign at Green Acres Community Garden in Barre, Vermont, provides passersby with information about the garden, who the food is for, and how to get involved.

Ways to keep up with garden care:

- **Scheduled maintenance** - This applies to both resident gardeners and on-site grounds staff. If there are communal areas to be cared for be sure to have a system for sharing the maintenance that is understood and used by all involved. Also be sure maintenance/grounds staff keep up with caring for pathways and fence lines, communicate about how this work can fit into other grounds care.
- **Regular work parties** - Get the work done together! Set regular times for getting communal work done that work for a majority of involved residents. Make it fun!
- **Tasks divided** - Some gardens have different “garden stewards,” roles divided among gardeners for staying on top of maintenance for different aspects of the garden, such as compost, shed, water, and pests. These “stewards” provide the basic care needed, call for work parties when necessary, and provide fellow gardeners with any important updates or tips.
- **Educational opportunities** - It’s possible the reason gardeners aren’t weeding their plots is that they don’t know the difference between a “weed” and the growing vegetables! Hold workshops, provide signs, share pamphlets, and be available to answer questions, especially for beginner gardeners. To help gardeners know when to harvest fruit and other communal plantings, some gardens have a white board and regularly update a list of what’s ready to pick.

Evaluation

Establishing goals for your garden/landscape project and a plan that helps you work towards them is the first step for a successful project. The second step is to check in with how effectively you're meeting your goals and addressing gardener needs. Set benchmarks for your project and ask yourself key questions along the way. Key questions* to reflect upon and pose to stakeholders:

1. What are we doing?
2. How well are we doing it?
3. Is anyone better off?

**See "Resources & Appendices" for more info on Results-Based Accountability.*



You can ask these questions throughout the process of developing the garden/landscape project, at the end of your first season, and for years to come to stay in touch with how successfully your gardens are managed and how they impact residents and other stakeholders.

Just as with outreach for your garden, use your knowledge of how residents in your community find out about things and communicate in order to get feedback about the garden project. Some examples of ways of soliciting and collecting feedback:

- Surveys and evaluations (paper or online)
- Face-to-face interviews
- Garden meetings
- Comment box in garden
- Informal conversations in the garden
- Closed group online communication tools (i.e. Facebook, Google Groups)
- End-of-season potlucks
- Evaluation "activities" (see Farming Concrete Toolkit for creative and inspiring ways of collecting specific data about your garden)

Resources: *How Are We Doing? (VCGN), Results Based Accountability resources (Common Good Vermont), Farming Concrete Toolkit (Five Borough Farm & Design Trust for Public Space)*

Celebration

Don't forget the importance of celebrating—in your garden, with your gardeners, with the broader community.

Celebrate the seasons, your garden's growth, volunteer contributions, and your friendly garden community! Even though celebrating often ends up at the bottom of our lists (even as it did here), we should recognize its high importance in growing our gardens. Celebrations build community, keep up team morale, and provide opportunities for others (i.e.

community members, property management, funders, etc.) to see the value in your project. Here are a few ideas for sharing thanks and singing the praises of your garden:



- **Hold an event in the garden.** At the beginning of the season this is a great way to get more people involved, at the mid-summer slump it gives a much needed boost, and at end-of-season it provides a way to say “thank you” to all who contributed to the season.
- **Share a meal.** This can happen at any time in the season, and it's a positive way to gather and celebrate something that's at the center of gardening — eating good food! Swap recipes, tell stories, share your harvest. With a few simple supplies, you can even cook in the garden.
- **Say “Thank You.”** Say it in public (at events), say it in person, post announcements in your local newspaper or community newsletter, send cards, deliver a bouquet of flowers from the garden... Pick your favorite way to show appreciation for the contributions of gardeners, staff, volunteers, and donors (of money, supplies, and time).
- **Tell your story.** Let the broader community know all of the great work that's been put into the gardens and the impact it has on the housing community. Talk with local newspaper and radio stations, outreach at town meetings and events, post photos and anecdotes to social media.
- **Have fun together.** You don't have to wait for a special event or announcement to celebrate. Have fun while gardening together! Even though gardening can be hard work, you can keep things light by inviting color and playfulness into your garden (e.g. flags, garden gnomes, murals, etc.), and by keeping a positive and open attitude about working together.



"Pull up a chair. Take a taste. Come join us.
Life is so endlessly delicious."

— Ruth Reichl



Good Food Good Medicine, a Barre-based food education program, sets up their outdoor kitchen at the Highgate Community Garden. Residents harvest from the garden, cook it on site, and enjoy fresh meals in the garden.



Gardening, Cooking, & Nutrition Education

Skill-building workshops for residents to manage gardens and edible landscapes are equally as important as understanding the value of healthy food through nutrition education and hands-on cooking experiences to learn how to use the harvest.

Here are a few questions to consider when deciding what educational opportunity to provide.

Who is going to participate?

Educational programing is often geared towards a specific age group. Here is a sampling of educational opportunities offered around the state. Contact information for each organization is listed below.

- **For children and teenagers** - (opportunities will need to be scheduled after school and/or during the summer months)
 - Funding through [Gardens for Learning](#) can cover a portion of gardening and cooking supplies, as well as a coordinator stipend, for running a summer camp program for children ages 3-14 years old. Gardens for Learning is a program of the Vermont Community Garden Network. Sites apply for the funding and technical assistance on an annual basis.
 - [The Learning Kitchen](#) program is available for middle-school youth and young adults at sites that serve low-income populations. The Learning Kitchen is a program of Hunger Free Vermont. Sites can apply to host the six-lesson series.
 - [Cooking from Our Roots](#) is an after school program in Barre, Vermont, where youth participate in hands-on activities to learn about gardening, cooking and cultural literacy. Cooking from Our Roots is an initiative of Good Food Good Medicine and takes place at Highgate and Green Acres Section 8 housing complexes.
- **For adults** - single parents, working parents, and seniors will all have different interests and availability. Keep this in mind when designing and scheduling educational opportunities.
 - Parents concerned with their children's health can participate in parent nutrition education classes. UVM Extension's [Around the Table with EFNEP](#) course empowers limited-resource families with young children to eat healthy on a budget and become more physically active.
 - Encourage a resident, property manager or community member to attend a one-time only workshop off site: The Vermont Community Garden Network schedules [Grow It! workshops](#) for garden leaders in the spring and fall.
 - Local co-ops, libraries, community and health centers often schedule garden and kitchen-related workshops.

What education is needed? What topics are residents asking for?

Residents and staff should help determine the topics of interest and keep in mind the knowledge and skill set that is needed for gardens and edible landscapes to be maintained and used by residents. Below are some examples of helpful educational topics.

Basic Information:

- Food access and food justice
- Race and class awareness
- Group facilitation
- Communications

General Gardening:

- Basic gardening skills (planting calendars, pest identification, crop rotation)
- Advanced gardening skills (seed saving, season extension)
- Backyard composting
- Integrated Pest Management
- Food preservation: canning, pickling, drying herbs
- Cooking with garden produce
- Child-friendly recipes
- Nutrient-dense foods on a budget

Edible Landscaping Specific:

- Native plant identification
- How to plant fruit and nut trees and berry crops
- Planting in polyculture
- How to plant a fruit, nut or berry bush
- How to mulch perennial fruit, nut and berry crops
- Fruit tree pruning

How often will the educational opportunities be scheduled?

Hands-on gardening and nutrition education that is scheduled throughout a season or as a series of classes tends to have a stronger impact on learning goals. One-time only educational opportunities are valuable to incite interest in gardening or cooking and pursue further knowledge and skill-building.

- Monthly community dinners can feature taste tests inspired by seasonal availability. The [Vermont Harvest of the Month](#) resource, coordinated by Green Mountain Farm to School, highlights a food item each month with recipes, lessons for educators, and storage and cooking tips.
- Both [The Learning Kitchen](#) and [Around the Table with EFNEP](#) programs consist of a series of six lessons around cooking and nutrition education.
- A meaningful summer experience for children can be funded through the [Gardens for Learning](#) grant program that can be renewed for up to 5 years.

Garden, cooking, and nutrition education can be as simple as posting a notice on what vegetables are ripe in the garden or sharing a recipe featuring an ingredient harvested on site. Also, look to your garden community for experienced gardeners, cooks, and nutrition specialists. Formal and informal mentorship can help less experienced gardeners and cooks learn new skills and increase their confidence.



Shared kitchen space at housing sites can be a great resource for educational programming that uses garden produce to cook healthy meals.

Where will the learning take place?

Having access to an established garden space and a well-equipped kitchen is ideal for hands-on learning. If you don't have those spaces, be creative and make do with what you have!

- Setting up a simple outdoor kitchen area is a great way to make the connection between gardens, edible landscaping, and the food on our plates.

What kind of funding is available?

There are federally-funded, grant funded, free and fee-based programs available.

- For an up-to-date list of garden-related grant opportunities see VCGN's grant page: <http://vcgn.org/garden-organizer-toolkit/garden-grants/>.
- If your budget is small or non-existent, consider partnering with a local organization, university, health center, or other local group who is already offering educational opportunities.
- Tap into the skills of residents and staff. Many people are willing and even eager to share their expertise.

Who to connect with for more resources?

- **Everyday Chef – Rutland Area Farm and Food Link**
<http://www.rutlandfarmandfood.org/cooking/> Workshops, demonstrations and outreach events focusing on food and cooking education in the Rutland area. For more information, call (802) 417-7381 or email elena@rutlandfarmandfood.org.
- **Gardens for Learning – Vermont Community Garden Network**
<http://vcgn.org/gardens-for-learning> Organize a summer camp for children to participate in hands-on gardening, cooking and nutrition activities. The annual grant program provides a stipend for a Site Coordinator to lead the program and also covers material expenses for garden and kitchen supplies. For more information, call (802) 861-4769 or email carolina@vcgn.org.

More resources

- **Good Food Good Medicine (GFGM)**
This Barre-based program empowers food insecure families with the practical skills to maximize healthy food access through: community gardening, seasonal cooking, affordable nutrition, family health, herbalism, food preservation activities, and leadership development. For more information contact gfgmprogram@gmail.com. GFGM team: Sandra Lory, Erica Feinberg, Joseph Kiefer, and Amy Goodman-Kiefer.
- **Integrating Food Access and Affordable Housing - Vermont Housing and Conservation Board**
<http://www.vhcb.org/pdfs/training/Integrating-Food-Access-and-Affordable-Housing.pdf> This document has some great additional tips on considering nutrition and food education at an affordable housing site.
- **The Learning Kitchen – Hunger Free Vermont**
<http://hungerfreevt.org/the-learning-kitchen> Apply to host a Learning Kitchen program at your housing site. Nutrition education and cooking classes are designed to improve food security for families with limited budgets. Funding, materials, instructor guides, recipes and support are provided. For more information, call (802) 865-0255 or email sharper-deas@hungerfreevt.org.
- **UVM Extension Master Gardeners**
<http://www.uvm.edu/mastergardener/> Master Gardener volunteers work throughout the state to complete their required service hours in home horticultural practices. Volunteers are often available to assist on community projects or at least provide support through a help hotline. For more information, call (802) 656-9562 or email master.gardener@uvm.edu.
- **UVM Extension - Expanded Food and Nutrition Education Program (EFNEP)**
<http://www.uvm.edu/extension/food/efnep/> UVM Extension offers free, hands-on nutrition education programs for eligible adults and children. For example, the Around the Table with EFNEP course was developed to empower limited-resource families with young children to eat healthy on a budget and become more physically active. This small-group, six-session course is engaging, interactive and fun. For more information, contact your county EFNEP educator (see website for list).
- **Vermont Harvest of the Month**
<http://www.vermontharvestofthemonth.org/> Refer to the monthly newsletter and online resources, recipes, and lessons to promote the use of local, seasonal Vermont foods. For more information, call (802) 334-2044 or email programs@gmfts.org.



"Food access is not enough unless it is accompanied by the skill building of food education through working in one's own garden, tending, harvesting, preserving and cooking the most nutritious foods on the planet."

— Joseph Kiefer



Residents at Whitney Hill Homestead in Williston, Vermont, use lawn and porch space to grow vegetable, herbs and flowers.



Conclusions

Congratulations! You're well on your way to developing a successful project at your housing community that will provide fresh fruits and vegetables, promote health and well-being, create healthy, beautiful landscapes, and support community building for your residents. And remember—you're not alone! There are many other groups in Vermont that have established and are working to develop community gardens and edible landscaping at housing sites. Below is a list of top "take-aways" from garden coordinators at housing communities around Vermont speaking to their experience with establishing and managing gardens at housing sites.

Advice from Garden Coordinators

1. Engage and listen to all stakeholders – i.e. residents, staff, management, and the outside community – when planning the project.
2. Keep property management in the loop from day one and get staff buy-in for the garden/landscape project.
3. Invest time and resources at the beginning to set up lasting systems and infrastructure.
4. Tailor your approach to the site you're working with—you can't have a blanket approach to developing gardens/edible landscapes at different sites; each property and process is different. Know your site and understand resident culture.
5. Think creatively about use of space - many people think they don't have the space for gardens, fruit, and berry plantings, but they do!
6. Make sure your garden site and orchard plantings are accessible for all residents.
7. Seek community partnerships, donations and in-kind support for your project.
8. Commit someone steady to keep the project going – a staff or volunteer coordinator. Coordinating staff and/or volunteers should visit the garden regularly to stay on top of garden upkeep and develop relationships with resident gardeners.
9. Develop a well-formulated plan to determine who's going to look after the gardens. Communicate with residents about the garden and potential for involvement.
10. Have something in place for the sustainability of gardens – funding, infrastructure, and support – before you start.
11. Be flexible; because things can change.
12. Keep with it – participation will wax and wane, but don't give up; this work takes time and a sustained effort.

This Toolkit is a working document that will be updated periodically with more resources to support your work with community gardening and edible landscaping at housing sites. See www.vcgn.org for updates and a PDF version of the Toolkit. Let us know what resources you still want to see and please share your success stories! Share your thoughts and stories and get more information on available resources for gardens by contacting Vermont Community Garden Network at info@vcgn.org or (802) 861-4769.






It helps to have the right tools to start and be successful in your garden project. If you haven't found the resource you're looking for yet, check out the following links, book titles, and appendices for more tips and tools for getting your project in the ground!



Vermont Edible Landscapes



Resources & Appendices

All of the resources cited throughout the toolkit are also available on the VCGN website at <http://vcgn.org/housing-toolkit/>. The icons in the list below indicate whether the resource is  included in the print version of the toolkit, or is a  weblink or  book.

Resources Referenced in Toolkit:







STEP 1: GET YOUR GROUP ORGANIZED

Who should be involved?

-  Building Your Garden Leadership Team (VCGN)61
-  Integrating Food Access & Affordable Housing (VHCB)
<http://www.vhcb.org/pdfs/training/Integrating-Food-Access-and-Affordable-Housing.pdf>





What do you need to discuss?

1. How should your garden team be structured for planning, coordination, and management of the gardens?

-  Making the Most of Meetings (BNAN) 63
-  Sample Group Agreements (Seeds for Change)..... 65
-  Community Garden Guidelines (VCGN) 67
-  Mountain View Garden Agreement (Rural Edge)..... 68
-  Avenue Apartments Garden Contract (CHT) 71
-  Community Tool Box, Chapter 20, Section 6, Training for Conflict Resolution (University of Kansas), <http://ctb.ku.edu/en/table-of-contents>



2. Why do you want a garden or edible landscaping at your site?

What are your goals?




-  Setting & Assessing Your Garden Goals worksheet (VCGN) 73
-  Harrington Village Resident Survey (CHT) 75
-  Establishing a Garden Project (VCGN) 76
-  Planning & Development Checklist (VCGN) 78

3. What assets and opportunities are available that could benefit this project?

What potential constraints and obstacles do you foresee for this project?

-  Asset Mapping worksheet (VCGN)..... 80
-  Community Tool Box, Chapter 3, Section 14, “SWOT Analysis” (University of Kansas) <http://ctb.ku.edu/en/table-of-contents>

6. How will the gardens be managed and cared for?

-  Sample Garden Maintenance Activities Schedule (BNAN) 82
http://www.bostonnatural.org/PDFs/cgOr_MaintenanceChecklist.pdf
-  Garden Organizer Monthly Tasks (adapted from BNAN) 86
-  Upper Valley Haven Garden Volunteer Handbook (UVH) 88

8. How will you engage residents in the garden?

-  Mountain View Resident Garden Application (Rural Edge) 92

STEP 2: DESIGN & PLAN SITE

What do you know about your site?

- 📄 Site Analysis: Creating a Base Map (VCGN)..... 94
- 📄 Scale of Permanence (P.A. Yeomans, Dave Jackie)
- 📄 Soil Testing (UVM Extension)
https://www.uvm.edu/pss/ag_testing/?Page=soils.html
- 📄 A Guide for Gardening in Small Spaces (Red Wagon Plants)..... 96

What else should you consider when designing the garden/edible landscaping?

- 📄 Physical Garden Features (C&S/Weiland)..... 101
- 📄 Sample edible landscaping design (Meghan Giroux)..... 108

What financial and material resources do you need to be successful?

- 📄 Sample Garden Cost (VCGN)..... 109
- 📄 Tips for Approaching Businesses (Nardozzi)..... 110
- 📄 How to Build a Raised Bed (VCGN)..... 111
- 📄 Fundraising for Success (VCGN)..... 113

STEP 3: PLANT & TEND TO YOUR GARDEN

Edible Landscaping Resources:

- 📄 Installing Your Edible Landscape (Meghan Giroux)..... 117
- 📄 Edible Landscaping (Rosalind Creasy, Counterpoint)
- 📄 Designing and Maintaining your Edible Landscape Naturally (Robert Kourik, Chelsea Green Publishing)
- 📄 Gaiia's Garden (Toby Hemmenway, Chelsea Green Publishing)
- 📄 Edible Landscaping with a Permaculture Twist (Michael Judd, Ecologica)

General Gardening Resources:

- 📄 Seed Starting Tips (VCGN)..... 121
- 📄 When to Harvest Your Vegetables (Archibald Neighborhood Garden). 125

ONGOING CONSIDERATIONS

Evaluation

- 📄 How Are We Doing? (VCGN)..... 127
- 📄 Results Based Accountability resources (Common Good Vermont)
<http://commongoodvt.org/hot-topics/results-based-accountability>
- 📄 Farming Concrete Toolkit (Five Borough Farm & Design Trust for Public Space) <https://farmingconcrete.org>

This list contains VCGN resources and examples from our partners and garden groups around the country. Visit <http://vcgn.org/housing-toolkit/> for links to all the materials.



Building Your Garden Leadership Team

Structure will help an organization to last; it will promote trust; it will help your group grow and create new opportunities for leaders to develop.

-American Community Gardening Organization

Dedicated, Motivated Individuals

Communal garden projects take passion for the cause, dedication to the project, and energy to get things done. It's more important to have a handful of dedicated team members than a fleet of individuals who are unmotivated about the project.

A Healthy Mix

A diversity of ages, backgrounds, knowledge, and skill levels strengthens your team. Start by identifying people in your organization, institution, or community who can play a potential role. Some questions you'll want to ask:

- ❖ Who's involved with the garden?
- ❖ Who does the garden affect? (Maintenance crews, neighbors, program staff, administrative staff, participants, participant families, etc.)
- ❖ What's missing? What added skills would strengthen your team and your garden?

For potential Garden Leadership Team members you might seek out:

- Long-time gardeners and enthusiastic new gardeners
- UVM Extension Master Gardeners
- Landscape architects, garden designers, landscapers
- Carpenters, builders
- Fundraisers, grant writers
- Planners, project coordinators, volunteer coordinators
- School or community leaders
- Social services and food security advocates
- Youth, elders

Value Youth & Elders,

whose perspectives are often left out of decision-making. Their opinions, ideas, and experiences can bring a unique perspective into your Garden Leadership Team.

Getting Organized

Start by asking what level of organization is appropriate for your garden group. Some groups will want to start by looking for an existing organization to operate under; for other groups an informal group or club is most appropriate; and still other groups may want to incorporate as a non-profit. Discuss as a group: (list from ACGA, *Starting a Community Garden*—see Resources Used)

- ❖ What is your purpose? What are your short and long-term objectives?
- ❖ How are decisions to be made? Who chooses leaders and how?
- ❖ How will work be shared? Who does what?
- ❖ How will you raise money? Membership dues, fund raising, grants, sponsors?
- ❖ Are you open to change? Flexibility is important when goals and members change.
- ❖ Do you want to be incorporated or act as a club?

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Clear Lines of Communication

Open, honest, and regular communication keeps your Garden Leadership Team alive and well.

Some ways to maintain healthy communication:

- ❖ Set regular meetings to bring all those involved up-to-speed and provide opportunities for discussion and feedback. Efficient meetings will keep your group engaged—set an agenda and goals.
- ❖ Choose a form of communication that works well for your team members to regularly stay up-to-date on developments so that no one gets left out.
- ❖ Build relationships and trust, and share successes through frequent small celebrations and occasional big events. (i.e. potlucks, BBQs, garden open houses, work parties, fundraisers)

Defined Roles and Responsibilities

Clarifying roles will keep your group moving, growing, and organized. In addition to considering traditional roles, tasks will also arise with roles based on skills, knowledge, and desire to be involved. Some possible responsibilities and roles include:

Responsibilities:

- ❖ Participant recruitment
- ❖ Registration coordination
- ❖ Community outreach & partnerships
- ❖ Program implementation
- ❖ Event organization
- ❖ Group communication
- ❖ Garden site maintenance
- ❖ Volunteer coordination
- ❖ Garden education

Roles:

- ❖ Chair/Point-person
- ❖ Membership
- ❖ Fundraiser
- ❖ Publicity/Outreach
- ❖ Treasurer
- ❖ Secretary
- ❖ Education

An Open Invitation

Identify ideal times to consider bringing new people on, including when you're:

- Designing the garden
- Planning for the garden season
- Managing the garden and gardeners
- Developing community support for the garden
- Maintaining common areas
- Organizing events
- Reaching out to new gardeners
- Fundraising
- Expanding the garden
- Facilitating and attending gardening workshop

Resources Used (and worth checking out)

- American Community Gardening Association, *Starting a Community Garden*
<http://communitygarden.org/resources/community-garden-start-up-resources/>
- University of Wisconsin Extension, *Starting a Community Garden: How to Put Your Plot on the Path to Success*
<http://learningstore.uwex.edu/Assets/pdfs/A3905-02.pdf>

*For setting up a group checking account see the IRS website for setting up an Employer ID Number (EIN):
<http://www.irs.gov/Businesses/Small-Businesses-&Self-Employed/Employer-ID-Numbers-EINs>

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Making the Most of Meetings

From Boston Natural Areas Network - www.bostonnatural.org

A successful community garden is often the result of many factors, the most important of which may be effective, open communication among members. Whether an active member of the steering committee or a one hour a week gardener, everyone wants to feel that their voice is heard and that no important decisions are made in secret. The most effective way of ensuring this is to hold regularly scheduled meetings at which everyone's concerns can be addressed and all important decisions are openly discussed and voted upon by the general membership. However, unless they're well organized, regular meetings can be onerous and attract fewer and fewer members as time goes on. Meetings that rehash the same old thing time after time can actually be an obstacle to open communication and can result in opposite of what was intended.

How to Conduct More Effective Meetings

Before the Meeting: Prepare

- The garden coordinator and/or the steering committee should write up an agenda and distribute it before the meeting.
- Arrange for a location that is accessible to everyone and, hopefully, can be used for every meeting. Make sure that the facility is accessible, that there is adequate seating for everyone, a black board or flip chart to write on, bathroom facilities, refreshments.
- The night before the meeting call to remind everyone.

The Agenda

- An agenda is a written plan for the meeting listing what you want to discuss and accomplish and how much time each item will take. It should be created before the meeting and is usually the task of the steering committee and the garden coordinator.
- Everyone should be invited to submit agenda items whether they are a part of the steering committee or not.
- In addition, time should be allotted for unexpected items, which may arise during the course of the meeting.

The Meeting

- Write the agenda on a black board or flip chart so that everyone can see it.
- Designate a facilitator or chair person whose job it is to see that all items are dealt with, the time schedule is followed, and that everyone is heard.
- Designate someone to record the minutes of every meeting. This job could be rotated among members or can be the responsibility of one person. Minutes of previous meetings can be kept in a binder so that they are easily available. Keep a record of attendance.
- Start on time and, unless the group agrees to stay longer, end on time. Everyone will appreciate this policy and habitual stragglers will soon realize that if they want to participate they will have to accommodate themselves to the group and not vice versa.
- Ask if there are any additions to the agenda.
- Acknowledge and thank people for what's been done since the last meeting.
- Be flexible about topics or time allotted. While every effort should be made to stick to the time schedule, some things may arise that are more complicated than was imagined when the agenda was devised.
- Before voting on any issue, the chair should summarize the issue and make sure that it's clear to everyone what the points, questions, concerns and viewpoints are. After a vote is taken, the chair should then state what was decided and who will do what.
- End the meeting with a review of what was decided, who is to do what, and set a date for the next meeting.
- If possible, call those not at the meeting to tell them what happened. If the budget allows, distribute minutes of the meeting to all members.

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Community Garden Leadership – 21 Tips

From Boston Natural Areas Network - www.bostonnatural.org

1. Learn to be a listener.
2. Learn to facilitate problem solving – rather than always have the right answer.
3. Provide guidance with decision making by sharing consequences and options.
4. Question yourself. Should I be doing this? Or making this decision? How can I facilitate others to make these decisions?
5. Let go of the stresses of the garden and situations that you cannot control.
6. Learn to understand what motivates people and support this.
7. Appreciate that every group functions differently. No two groups are alike nor are any two garden sites alike.
8. Gardeners love to garden. Ensure that they are successful at gardening. And get their hands in the soil as quickly as possible.
9. Learn when to hold hands and when to let go.
10. Developing permanent garden leadership groups and gardens takes time. Think in terms of a “three year plan.”
11. Learn not to impose your will on the group or the project.
12. Teach people to observe. Push them to articulate what they believe and see.
13. Invest time in planning.
14. Be prepared to alter your plans based on new information.
15. Work with people to dream and help them realize their dreams (with a dose of realism!)
16. You don’t have to have all the answers.
17. Let the group move as fast or as slow as they need.
18. It’s not your garden, do not impose your will on others.
19. Take time to celebrate the accomplishments. Use a checklist that has big things and little; it helps everyone feel like things are moving along.
20. Suggest that the group give their future garden a name at the first meeting. And make a sign announcing it.
21. Don’t support one-man shows! Sustainable gardens and groups involve everyone and foster new leaders to emerge.

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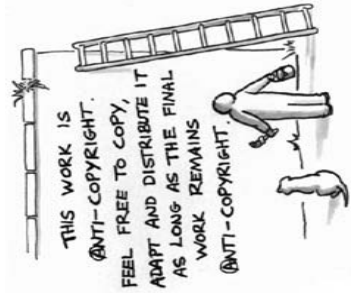
Group Agreements



Proposed Group Agreement

1. Make sure everyone is able to contribute
 - more talkative people: show a little restraint
 - quieter people: your contributions are very welcome
2. Only one person speaks at a time
 - put up your hand if you want to speak and wait for your turn.
3. Respect each others' opinions even / especially if you don't agree with them
4. Participate!
5. Confidentiality – some things shouldn't be repeated outside of this meeting.
6. Be conscious of time – help stick to it, or negotiate for more
7. Mobile phones off to minimise disruptions
8. Regular breaks

For more briefings and training workshops see:
www.seedsforchange.org.uk



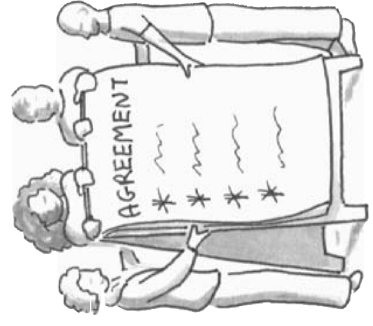
Group agreements are a useful tool for getting your event off to the right start and keeping it on track. They help a group to come to an agreement on how it will work together respectfully and effectively. This in turn enables people to interact more co-operatively and maintain respect for each other.

Making these decisions as a group is far more empowering than having a facilitator set out 'rules' for everyone to follow. Also, people are much more likely to respect and implement an agreement that they have had an input into. It will make your job as a facilitator much easier. When problems or conflicts arise you will be able to refer back to this agreement (e.g. "We all agreed at the beginning that it's best if only one person speaks at a time...").

How to create a group agreement

There are lots of ways to create group agreements. When deciding which to use you might consider some of the following: whether the group will be working together in the longer term, how controversial the topic of the meeting or workshop is, how much time you have and what level of trust the group have in you as a facilitator.

For groups that are working together over a longer period of time it may be worth spending a little more time to develop a longer term group agreement. You could use a process such as the one below. Although taking this much time over a group agreement may sometimes feel a little frustrating, you will save that time later on. As a result, your event will run a lot more smoothly.



More detailed group agreements

Allow a **minimum of 30 minutes** to come up with a group agreement.

Once everyone has arrived, **ask a question like:**

- “What things would make this group/workshop work well for you?”
- “What makes this a safe and respectful place for us to work in?” or
- “What would make this group a good space for learning?”

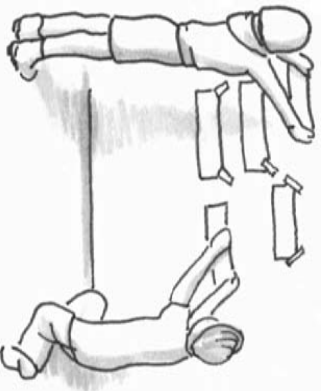
You can **ask people to respond in several ways**, eg:

- People call out points which are written up on flipchart paper for everyone to see.
- People write their comments on pieces of paper and group them together on the wall.
- People talk about the question in pairs or small groups and then feed this back to the whole group.

When you have drawn out people’s ideas, **go through the list one by one** and check for clarification. Discuss how this can be turned into practical ways of working.

- Take for example “it’s alright to disagree” - how would this work practically? You could add “... by challenging what a person says, not attacking the person themselves.”
- Another example is “Confidentiality”. This is also quite vague and you will need to discuss what people understand by it and what level of confidentiality they expect from the group.

Finally you need to **check for agreement** on all the points from the whole group.



Short group agreements

Other ways of creating group agreements may be more appropriate for shorter meetings or workshops, or for groups that don’t tackle emotive or controversial topics. These include:

- proposing a group agreement then seeking additions, amendments and then agreement;
- having an ideastorm around the idea of ‘respect’ (“what would make me feel respected in this workshop”) and using that as basis for agreement. Other words that might be useful as well as, or instead of, ‘respect’ are ‘safety’ and ‘co-operation’.

When you’ve agreed your group agreement, make sure it’s on display for all to see – ideally have it written up on a whiteboard, flipchart paper or overhead projector.

Keep the agreement for use in future meetings or workshops with the same group, but check in each time to make sure that everyone is still happy with it. They may, for example, wish to add something to the agreement.

And don’t forget that newcomers or latecomers haven’t agreed anything, so take the time to explain it to them and ask for their endorsement of the agreement (you can always do this in a break). If they want to amend it, have a discussion with the full group until everyone agrees.



Community Garden Guidelines



Why bother?

When thoughtfully written, garden guidelines can provide crucial support for addressing gardener needs. By taking the time to create them, you are ensuring common understanding among everyone in your garden community.

Key & Common Ingredients

- ❖ **Garden plot upkeep/maintenance:**
Encourage gardeners to visit garden often and keep plot free of trash and low on weeds, as well as paths free of tools and debris.
- ❖ **Plant-by and Clean-up dates:**
Provide dates that gardens should be planted by at beginning of the season and cleaned-up at the end.
- ❖ **Fee or deposit:**
If garden has a fee, explain how much and when due.
- ❖ **Liability:**
To protect your group, you may want to include a *Release of Claims* agreement.
- ❖ **Volunteer requirements:**
Include number of hours, volunteer options, meetings to attend, etc.
- ❖ **Prohibited substances, materials, and actions:**
From non-organic fertilizers and pest-control, to alcohol and drugs, to non-biodegradable materials, to harvesting only from own plot.
- ❖ **Supervision:**
Of children, guests, and pets.
- ❖ **Materials, supplies, and services available:**
Examples—tools, water, compost piles, etc. Also include maintenance instructions.
- ❖ **Friendly suggestions:**
Such as—be respectful, get to know your garden neighbors, conserve water, be mindful of neighbors when planting tall crops, encourage celebration, etc.
- ❖ **Create your own:**
Rules will vary depending on the needs of each garden.

What's in a name?

Community garden guidelines go by a number of names: *Guidelines*, *Agreement*, *Rules & Regulations*, *Expectations*, *Commitment*, or *Pledge*.

A name can send a message. For example: *Rules* might convey strict enforcement, *Guidelines* could convey some flexibility, and *Agreement* may convey a commitment by all parties involved.

How do you make sure the guidelines are effective?

- ❖ Involve your garden community in developing guidelines.
- ❖ Include a signed agreement, either as a part of the guidelines or as a separate document.
- ❖ From the beginning, clarify consequences for not following guidelines and follow-up on enforcement.
- ❖ Communicate who gardeners should contact for various issues, ideas, needs, or questions.
- ❖ Keep your list simple and understandable.
- ❖ Provide translation where needed.
- ❖ Put the list up in a communal garden space for all to see.
- ❖ Provide gardeners with take-home copy of guidelines.
- ❖ *Support your gardeners to be successful and active participants.*

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Mountain View Garden Agreement

The Mountain View Garden is a community garden that is open to the residents at Mountain View and Neighbors Helping Neighbors. In the spirit of the community garden movement, it is our wish to offer this green space as an educational component to promote natural and organic practice, as well as making healthy food more accessible. Rural Edge would like to welcome you and thank you for your interest in the garden! We look forward to growing with you. In order to obtain a plot, members must agree to the requirements below:

1. This is an annual contract that will commence at the beginning of each grow season in the spring. The community garden is intended for the use of growing vegetables, fruit, flowers, and herbs.
2. Plots are assigned on a first-come first-serve basis with residents. Mountain View residents who have plots will possibly have some minimal expenses for some personal hand tools, etc.
3. Since the success of the garden depends upon the support of its gardeners, each plot member is encouraged to participate in community garden service during the season for general cleaning and upkeep
4. During the year, you will be responsible for keeping your plot planted, watered, harvested, weeded, pruned to prevent excess growth outside of your plot, cleared of any dying or dead plants, and any other garden related maintenance. All of these provide for a neat, attractive, cared-for appearance in the garden plot areas.
5. Please do NOT harvest, water, or tend to another plot member's garden unless given permission. For example, if another member goes on vacation and asks you to do so, this would be acceptable in order to prevent their plot from being reclaimed.
6. If your plot goes unattended for more than 2 continuous weeks of time, you will be notified by phone, e-mail, or a letter. You will have 1 week to resolve the situation—the garden committee will follow up after that week and upon the second week the plot will be reclaimed. RuralEdge reserves the right to give the plot to the next person on the waiting list. If there is no waitlist, the garden committee will maintain it.
7. Since weeds germinate and spread quickly, we ask that you diligently keep your plot weed free. Remove and dispose of weeds properly in the appropriate designated place. Chemical herbicides are prohibited in this garden. Organic solutions are acceptable. There is also no use of chemical fertilizer, pesticides, fungicides, etc.
8. The shared garden tools that are available will be stored in a locked shed. Residents will approach the members of the garden committee to sign out tools.
9. Water conservation will be practiced whenever possible.
10. This will be a locked space from dusk until dawn. The gates will be unlocked at 6am, and will be locked up again at nightfall.
11. For the consideration, enjoyment, and safety of others in the garden, we ask that you be mindful of where tall crops are planted, recoil or return hoses from pathways for safety, place trash and unwanted plant materials in their designated areas, and clean and return tools.
12. Smoking, chewing tobacco, alcoholic beverages, drugs, and bullying are strictly prohibited in the garden. Children must be accompanied and supervised by an adult.

Sample Garden Agreement - Rural Edge, www.ruraledge.org

13. Pets are **not** allowed in the garden space for the comfort and safety of all community members
14. This garden is considered a safe space where all are welcome and derogatory statements or actions will not be tolerated.
15. Any sort of theft or vandalism to the garden space is considered a **LEASE VIOLATION**. Drug use, and Bullying are considered a **LEASE VIOLATION** and the property manager will be notified and will begin the lease violation processes.
 - a. Please review section 7 of your lease agreement; Articles C, D, and E for more information on what is considered a violation of your lease in relation to this community space.
 - b. Please review the “**Disturbances**” section of your tenant handbook:
 - i. “Social and friendly gatherings of residents and guests are encouraged, provided that they do not become boisterous or objectionable to other tenants. Residents are solely responsible for their guests’ behavior both inside apartments and in the common areas. Stereos, radios, and televisions are to be kept at a minimum level so that others are not reasonably disturbed. Nothing should be done in or about the premises which might interfere with rights, comforts, or conveniences of other residents.”

I understand the responsibilities that are expected of me and all components of the garden agreement that are listed above. I also agree to abide by these responsibilities and expectations, knowing that failure to do so will result in the termination of my use of the garden space.

Signature of tenant

Date

Signature of Property Manager

Date

Neighbors Helping Neighbors Addendum

It is understood that members of *Neighbors Helping Neighbors* are not exclusively Mountain View residents. It is also understood, that although they are not all residents, they are required to comply to the expectations of this property. Members of Neighbors Helping Neighbors, while using this community space at the Mountain View property are expected to:

1. Keep the space in a safe and sanitary condition. Keep the grounds, parking area, and garden area in a neat fashion. Do not make any repairs or alterations to the community space without consent.
2. That the use, or possession, manufacturing, sale, or distribution of any illegal controlled substance (as defined by local, state, and federal law) while on the property. The use of alcohol or tobacco in the garden is also prohibited.
3. To follow all maintenance procedures, properly dispose of trash, and to not cause damage to this community space.
4. Bullying and derogatory statements are not acceptable under any circumstances
5. This space is considered a safe space for all
6. Social and friendly gatherings are encouraged, provided they do not become boisterous or objectionable to others. NHN member is solely responsible for their guests' behavior while at the property.

I understand the responsibilities that are expected of me and all components of the addendum that are listed above. I also agree to abide by these responsibilities and expectations, knowing that failure to do so will result in the termination of my use of the garden space.

Signature of NHN member

Date

Signature of Property Manager

Date

Avenue Apartments Community Garden Contract

- We must have a signed garden contract on file for each household before the household is allowed to use either their allotted plot or partake in a communal plot.
- If a household has an individual plot, the household will bear the responsibilities of this contract until either a) the household moves out or b) the household decides they no longer want the plot and communicates this *in writing* to their property manager *no later than May 1st of each year*. If the household decides they want a plot again in the future, they will either be added to the bottom of the waiting list or given a new plot if one is available and there is no waiting list.
- All gardeners who partake in this garden understand they are taking on certain risks (theft, damage, etc.) but recognize that the primary goal of this community garden is to educate youth and provide an enjoyable and relaxing communal atmosphere. All gardeners agree to work together to resolve any issues that arise, keeping these goals and priorities in mind.
- All gardeners must follow the garden guidelines.

Garden Guidelines

- Plots must be worked by June 1st (with exception of the garden's opening year, 2015) and plant structures must be taken down by November 1st. Cool weather crops may remain, as long as they are tended.
- No trees, large bushes, or illegal plants may be planted.
- Plots should be kept neat, with weeds under control, and plants should be kept within the plot's confines.
- If you have an individual plot and are going to be away for an extended period of time, please let your property manager know and arrange for someone to water and weed your plot. Each household will get *two written warnings* if it appears that their plot is not being attended to. After each warning, the household will have five days to either respond to the notice or attend to their plot. After this, the plot will be reassigned to the next household on the waiting list.
- Only organic pesticides and fertilizers may be used. Herbicides will not be permitted. A good source for organic pest controls is Gardener's Supply Company: (www.gardeners.com).
- Gardeners are expected to maintain the pathways around their plots and clean up any debris, weeds, and/or rocks that fall while they are working.
- The on-site compost is for garden waste *only*. Other food waste must be disposed of separately. The compost needs to remain locked when not in use. Please notify your property manager if you see people disposing of non-garden waste in the compost.
- One hose will be provided that attaches to the spigot located by the inaccessible side-door. All households can access this hose. The spigot may also be used to fill individual watering cans. *Make sure you turn off the spigot when it's not being used and detach the removable*

Sample Garden Contract – Avenue Apartments Community Garden, Champlain Housing Trust

knob. The removable knob should be kept in the locked shed so the spigot cannot be used by anyone other than garden participants.

- Participants must remove any trash they bring on-site. Trash barrels will not be provided.
- We expect all gardeners to be respectful of other households' individual plots. Gardeners *should not touch crops in any plot that is not their own (with the exception of communal plots) unless given permission by the plot-holder.* If it appears that an individual household's plot needs attending, please let your property manager know, and they will take it from there.
- Champlain Housing Trust is not responsible for any garden theft or damage.
- Tools may be kept in designated area in the shed, but keep in mind that these tools may be used by other garden members. Please be respectful of other gardener's tools and clean & return them to their original location when you are done using them. Champlain Housing Trust is not responsible for any tools that go missing.
- No alcohol, drugs, fires, or radios will be allowed on site.
- Gardeners understand that the Champlain Housing Trust is not responsible or liable for any bodily injury, personal injury, illness, death, or property damage that may result from the gardeners' work on the community garden. Gardeners also understand that the Champlain Housing Trust does not assume any responsibility or obligation to provide financial assistance or other assistance, including but not limited to medical, health, or disability insurance in the event of injury or illness.
- These guidelines are intended for the health and safety of all garden participants. Your property managers will have final say in any issues or concerns that are brought to their attention. They reserve the right to forfeit any household's plot if the household is creating issues for other gardeners or behaving in any way that violates the garden's principles and guidelines.
- Please contact an Avenue Apartments point person (listed below) if you have an issue before contacting either your property manager or Anna Herman.
 - Point person #1:
 - Point person #2:
 - Anna Herman:
 - Avenue Apartments property manager:

I have fully read and understand all of the above guidelines. I agree to garden respectfully with my neighbors and keep the garden a happy, secure, and enjoyable place where all participants can garden and socialize peacefully in a neighborly manner. I understand if I do not follow the above guidelines my privileges will be revoked.

Head of Household: _____ Date: _____

Property Manager: _____ Date: _____

Sample Garden Contract – Avenue Apartments Community Garden, Champlain Housing Trust

SETTING & ASSESSING YOUR GARDEN GOALS

1. Start with a mission. Ask: *What do we want?*

All members of your group should have a common understanding of the overall ‘mission’ or ‘vision.’ If your mission is narrow, use that as a starting point. If your mission is broad, underline one aspect of your mission to focus on for this activity. This might be anything from “provide a site for people to grow food” to “provide a healthy environment for people to gather and build community” to “increase our community’s food security.”
Our garden’s mission is to...

2. Identify specific goals. Ask: *What will it take to fulfill our mission?*



Once you have a sense of your garden’s mission, then you can consider more specific goals that can help you fulfill your mission. Make a list of possible goals—get creative. For the mission “increase community food security,” a goal might be to “grow food year-round.”

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

3. Focus on a single achievable goal.

From your list of possible specific goals, pick one to focus on that seems the most achievable. Circle one of the above. If your goal is not specific enough, ask yourselves: *What will it take to fulfill our goal?* Brainstorm and choose one specific, achievable goal. For the above example goal, “grow food year-round,” a more specific goal could be “build a greenhouse.”

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4. Picture what success will look like. Ask: *How will we know that we've been successful?*

What you picture should be what you want to be the results of your goal. For example, if your specific goal is to “build a greenhouse,” you may be working towards the result that “more gardeners use greenhouse space to grow early spring crops.” Write and/or draw your picture of success—in the space provided or use a larger writing space for brainstorming. Refine each result so that it can be measured. For example, “40% of gardeners use greenhouse space to grow early spring crops, by spring 2016.”



5. Decide what actions to take. Ask: *What will it take to get there?*

These should be actual steps you take to meet your goal. Start broadly and get specific. Using the greenhouse example, some of your steps could be: develop a funding plan, develop a building plan, and develop an education plan. Your next layer of steps would include the actions in those plans. List your action steps—use the space below or a larger writing space for brainstorming.

(For later) How do we find out how we're doing?

- 1) What information do we need?
- 2) How will info be used? (i.e. internal planning, PR, funders, community outreach)
- 3) What type of info is most appropriate for this use? (i.e. numbers, quotes, photos)
- 4) How will this info be recorded and kept? (i.e. survey, tally sheet; notebook, computer)

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Attention

Harrington Village Residents:

We are excited to announce that we will be building a community garden here at Harrington Village!

Please fill out this form and return it to us using the return envelope provided. In order to be considered for a garden plot we need to receive this form in our office no later than April 15, 2015.

Please check all that apply:

- My household would like to have a gardening plot
- My household would **not like a gardening plot.**
- I already know how to garden and will not need training
- I would like to receive some training and/or attend a workshop
- I will need a handicap accessible plot

Name _____

Number of people in household _____

Best way to contact _____

Please keep in mind that filling out this form does not guarantee that you will get a plot. If you have any questions, comments, or concerns please contact Anna Herman at (802) 861-7395.



Establishing a Healthy Community or School Garden Project

The following is a list of tips new garden groups have found helpful when starting community or school gardens. Keep in mind that every garden and every community is unique! Rather than using this as a checklist, we hope that the following tips can give you guidance where needed. We wish you the best as you begin to build your garden!

Get your group together

- ❖ Seek out dedicated, motivated individuals to be a part of your garden planning committee.
- ❖ Engage a diverse group of people that represent stakeholders in your soon-to-be garden.
- ❖ Establish clear lines of communication and regular meetings for the group.
- ❖ Define roles and responsibilities for your garden

Define your goals

- ❖ Meet as a group to discuss and determine the purpose or mission for your garden.
- ❖ Develop goals that will bring you closer to the overall mission.
- ❖ Identify concrete tasks and a timeline for achieving them.



Pick a site

- ❖ Look for a site that meets your garden's purpose and goals.
- ❖ When choosing the potential garden site, keep in mind several considerations, including:
 - **Light:** At least 6 hours of direct sun daily.
 - **Drainage:** Little to no standing water after heavy rains.
 - **Slope:** As level as possible.
 - **Exposure:** Protected from high winds; Avoid low-lying frost pockets.
 - **Surrounding vegetation:** Few trees; Look out for problematic plants (i.e. poison ivy, stinging nettles).
 - **Soil:** Test the soil for heavy metals and other contaminants.
 - **Water:** Ideally a close water source is available.
 - **Safety:** Site promotes personal safety; If digging, make sure not digging on utility line - Call Before You Dig“811.”
 - **Accessibility:** Location and layout of site suitable for potential gardener population & for bringing materials onto the site.
 - **Size:** Space large enough for the number of potential gardeners, garden infrastructure, a diversity of garden activities, and room for growth.
 - **Ownership:** If the potential site is not owned by you or your gardening team, find out who owns the site to see if you can rent or buy the land.

Develop your garden site & group structure

- ❖ Conduct a site analysis to determine what your site needs to become a garden and where you should place various features.
- ❖ Create a garden site plan that lays out landscape and garden features.
- ❖ Based on your site analysis and site plan, make a list of supplies, materials, and other resources needed. Divide the site development into multiple phases, as budgeting and time allows.
- ❖ Outline the budget, considering your garden's various developmental stages, from budgeting for garden construction, to on-going needs, to future development and garden sustainability.
- ❖ Develop a fundraising plan. Consider various fundraising strategies to match your garden's developmental stages, from seeking donated and recycled materials, to conducting bake sales, to writing grants.
- ❖ Create a garden management plan. Discuss management role, gardener outreach, registration, fee structure, etc.

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Grow your team


- ❖ Both throughout the process of establishing your garden and once it is up and growing, keep in mind ways to include more people in the project.

- | | |
|---|---|
| <ul style="list-style-type: none">❖ Brainstorm a list of key people you may want to include.<ul style="list-style-type: none">○ Volunteers: Look for volunteers who have enthusiasm for the project, time to give, and the skills/knowledge needed to help you accomplish your goals (i.e. expert gardeners, landscape designers, grant writers, etc.).○ Garden Leadership: Include people most affected by the garden (i.e. gardeners, neighbors).○ Partnerships: Think creatively and strategically about community groups, businesses, agencies, and individuals who could support your garden (i.e. community leaders, garden businesses, garden-related educators). | <ul style="list-style-type: none">❖ Identify ideal times to consider bringing new people on, including when you're:<ul style="list-style-type: none">○ Designing the garden○ Planning for the garden season○ Managing the garden and gardeners○ Developing community support for the garden○ Maintaining common areas○ Organizing events○ Reaching out to new gardeners○ Fundraising○ Expanding the garden○ Facilitating and attending gardening workshops |
|---|---|

Resources for Starting a Community Garden

- ❖ **Vermont Community Garden Network, *Garden Organizer Toolkit***
<http://www.vcgn.org>
Helpful resources for starting and managing a garden project, organizing and leadership tips, garden learning, and more.
- ❖ **American Community Gardening Association, *Resources***
<http://communitygarden.org/resources/>
A list of links to: sample evaluations tools and forms, community garden start-up guides, articles, and more.
- ❖ **Boston Natural Areas Network, *Organizing Your Garden***
<http://www.bostonnatural.org/cgOrganizing.htm>
Community garden organizing tips, including: garden leadership, health and safety, task organizer, maintenance schedule, record-keeping, and more.
- ❖ **Gardening Matters, *Gardeners' Resources – an online "Toolshed"***
<http://www.gardeningmatters.org/garden-resources>
Tips and links on community garden coordination, community relations and organizing, and youth gardening; plus a *Community Garden Start-up Guide*.
- ❖ **University of Wisconsin Extension, *Starting a Community Garden: How to Put Your Plot on the Path to Success***
<http://fyi.uwex.edu/peopleplants/publications/>
This 7-page document outlines key steps and tips for starting a community garden.
- ❖ **University of Missouri Extension, *Community Gardening Toolkit***
<http://extension.missouri.edu/publications/DisplayPub.aspx?P=MP906-6>
Links to a variety of community garden start-up guides; sample gardener welcome packets, applications, guidelines, budget, and land use agreement.



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COMMUNITY AND SCHOOL GARDEN PLANNING AND DEVELOPMENT CHECKLIST

Getting Started / THINKING Ahead Stage	yeS/No	Action Steps
Do you know who the garden will serve?		
Does your garden project have a contact person?		
Does your garden have approval by the landowner or school?		
For community gardens – do you have a written lease?		
Does your garden have a fiscal agent that can provide insurance?		
For school gardens – do you have a summer maintenance plan?		
Does your garden have a reliable source of water?		
Can your garden operate on a non-cash basis?		
Can rototilling or plowing (if needed) be donated?		
Can gardeners provide their own tools and equipment?		
Can stakes, lumber, mulch, and materials be scavenged?		
Can a garden steering committee be formed?		
Will you seek donations of seeds, plants, and supplies?		
Will you apply for small grants available to ad hoc groups?		
Will your garden project recruit community volunteers?		
Will you seek help or advice from Master Gardeners?		
Is your project being documented via photos and records?		
Does your garden project have an identity (e.g. a sign)?		
Grassroots Fundraising / Budgeting Stage	yeS/No	Action Steps
Are cash resources necessary to sustain your garden project?		
Are steering committee members willing to take on roles?		
Can the steering committee reach consensus in decisions?		
Are ideas and input being sought from stakeholders?		



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Grassroots Fundraising / Budgeting Stage (continued)	yes/no	Action Steps
Can the committee develop plans and goals for fundraising?		
Is a cash or checking account established for your garden?		
Will the committee ensure that cash expenses are covered?		
Are volunteers and sponsors acknowledged and thanked?		
Does the steering committee have a meeting schedule?		
Does the garden have a budget for revenues and expenses?		
Will a cash balance be carried over from one season to the next?		
Institutional Fundraising / Permanence Stage	yes/no	Action Steps
Does your garden project/program have a timeline in place?		
Does your garden project/program have a presence on the web?		
Does your garden program have a brochure or newsletter?		
Is a scrapbook maintained for your garden project/program?		
Will your garden project/program seek publicity in the media?		
Do you have a mailing and email list of contacts and supporters?		
Does your garden network with other community-based gardens?		
Will your garden seek grants available to schools or nonprofits?		
Does your garden project/program give back to the community?		
Does your steering committee attract & welcome new members?		
Can your steering committee effectively transition leadership?		
Does your garden have a maintenance plan for soil fertility?		
Does your committee have a long range plan for sustainability?		

This is a list of questions to get you started thinking about your garden project. Not all the categories will apply to every garden and it's OK not to have all the answers!

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GARDEN ASSET MAPPING: COMMUNITY CONNECTIONS

Whether you're starting a garden or embarking on a new project for your existing garden, one of the best things you can do in the planning process is to step back and get a better picture of your garden, its surroundings, and what resources you can tap into to make it stronger.

A **GARDEN ASSET MAP** is a drawn representation of the physical and/or social resources and connections available in and around your garden, as well as in your broader community.

What to draw: (3 layers to explore)

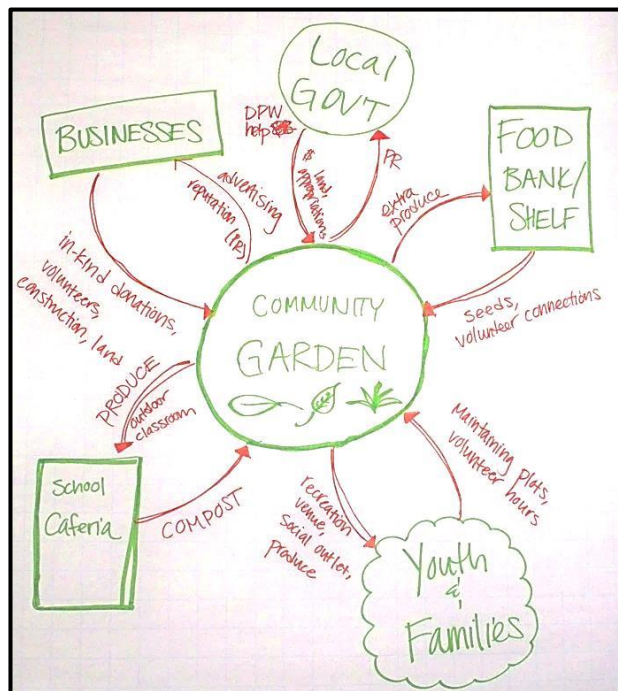
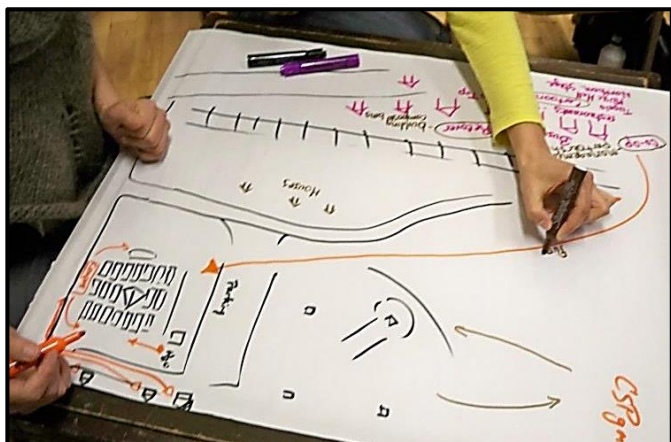
1) Inner circle:

- *Physical:* sketch out the existing or potential physical garden site
- *Social:* include existing or potential resources available amongst those directly connected to your garden project (leadership team, gardeners, volunteers, etc.)

2) Middle circle:

- *Physical:* sketch out what's nearby (neighborhood, school, farmers market, food shelf, recreation area, businesses); traffic patterns (when and how are people passing by)
- *Social:* include existing or potential resources available amongst those in your immediate community (neighbors, teachers, parents, organizations, businesses, institutions, etc.)

3) **Outer circle:** include existing or potential resources and connections available with the broader community (businesses, organizations, and institutions outside of the garden area).



Your Style: A garden asset map should be drawn in a way that is most helpful for your group. For some groups, a more physical representation of the garden and its surroundings is best (above), while others get more out of a conceptual drawing of garden resources and connections (right).

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What to discuss:

- *Why do you want to connect to resources?* The map can be used for multiple purposes, but it may be helpful to address one specific goal at a time (i.e. developing a garden, building a leadership team, seeking community support, or recruiting gardeners).
- *What resources are you looking for?* Setting your goal will help to determine what resources would be most helpful for you. However, stay open to resources that may not make it on your initial list.
- *What is the potential for connecting each of these resources?* Draw lines on your map with arrows showing whether the garden gets or gives something from the resource.
- *How are you going to reach out to make these connections happen?* Once you've determined what resources are available and why they might be useful, you'll want to think about how you're going to connect them to your garden (and visa-versa).

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MAINTENANCE ACTIVITIES SCHEDULE

ITEM	ACTIVITY	BY WHOM	FREQUENCY												MONTH IN WHICH ACTIVITY IS PERFORMED											
			D	W	M	Y	Q	J	F	M	A	M	J	J	A	S	O	N	D							
<i>ORGANIZATIONAL ISSUES</i>	Annual plot assignment	C				X																				
	Rules & task assignment	C			X																					
	Update gardener contact info	C			X																					
	Common areas	G			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X				
<i>GENERAL CLEAN-UP</i>	Individual plots	G			X																					
	Graffiti removal	OC						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Leaf removal	G					X																			
<i>SIDEWALKS</i>	Trash removal	G			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Trash & weed removal	G			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X				
<i>SOIL</i>	Snow removal	O,G						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Garden-wide renewal	O						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Test - lead	O																								
<i>WATER SYSTEM</i>	Test - pH	G						X																		
	Inspect functioning	O,IS,OC,C																								
	Fall shut-down																									
	System blow-out	O,IS,OC,C						X																		
<i>FENCES/GATES, WALLS & MOW BANDS</i>	Backflow removal/drain	O,IS OC, C					X																			
	Meter removal	O,IS,OC,C					X																			
<i>GENERAL REPAIRS</i>	Spring start-up	O,IS,OC,C					X																			
	System turn-on						X																			
	Leak check & repair	IS, OC, C					X																			
	Meter operational	O, C					X																			
	BWSC inspections	BWSC					X																			
	General repairs	IS, OC			X																					
	Carpentry repairs	IS, OC				X																				
<i>MASONRY & METALWORK</i>	Masonry repairs	IS, OC						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Metalwork repairs	IS, OC						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Paint	IS, OC					X																			
<i>LOCKS</i>	Inspect gates & locks	C, G			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Lubricate gates & locks	C, G			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X				
<i>UNIVERSAL LOCK</i>	Maintain universal lock	C			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X				

O = As Required
 O = Owner
 IS = In-House Specialist

OC = Outside contractor
 C = Coordinator
 G = Gardeners

MAINTENANCE ACTIVITIES SCHEDULE

ITEM	ACTIVITY	BY WHOM	MONTH IN WHICH ACTIVITY IS PERFORMED																		
			F	M	A	M	J	J	A	S	O	N	D								
RAISED BEDS	Wall, edge inspections	IS, OC, C	X																		
	Repairs	IS, OC																			X
DELIVERY AREA	General clean-up	G						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Weed	G						X	X	X	X	X	X	X	X	X	X	X	X	X	
COMPOST FACILITY	Surface renewal	IS, OC, G								X	X	X	X	X	X	X	X	X	X	X	
	General clean-up	G						X	X	X	X	X	X	X	X	X	X	X	X	X	
PATHS	Surface inspection	IS, OC, C						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Surface renewal	G						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Edge	IS, OC, G						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Litter & debris pickup	G	X							X	X	X	X	X	X	X	X	X	X	X	
	Rake	G								X	X	X	X	X	X	X	X	X	X	X	
PLOT DIVIDERS	General Inspection	C						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Repair	IS, OC						X	X	X	X	X	X	X	X	X	X	X	X	X	
TREES	General inspection	IS, OC, C, G						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Fertilize	IS, OC, C, G									X	X	X	X	X	X	X	X	X	X	
	Prune	IS, OC, C, G									X	X	X	X	X	X	X	X	X	X	
	Water	G									X	X	X	X	X	X	X	X	X	X	
	Mulch maintenance	G						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Plant replacement	IS, OC, C, G									X	X	X	X	X	X	X	X	X	X	
SHRUBS	General inspection	IS, OC, C, G						X	X	X	X	X	X	X	X	X	X	X	X	X	
	Fertilize	IS, OC, C, G									X	X	X	X	X	X	X	X	X	X	
	Prune	IS, OC, C, G									X	X	X	X	X	X	X	X	X	X	
	Water	G									X	X	X	X	X	X	X	X	X	X	
	Mulch maintenance	G									X	X	X	X	X	X	X	X	X	X	
	Plant replacement	IS, OC, C, G									X	X	X	X	X	X	X	X	X	X	

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MAINTENANCE ACTIVITIES SCHEDULE

ITEM	ACTIVITY	BY WHOM	FREQUENCY												MONTH IN WHICH ACTIVITY IS PERFORMED											
			D	W	M	T	F	S	S	O	N	D	D	M	A	M	J	J	A	S	O	N	D			
FRUIT TREES	General inspection	IS, OC, C, G				X														X						
	Fertilize	IS, OC, C, G						X				X	X	X												
	Spray	IS, OC										X	X	X												
	Prune	IS, OC, C, G										X	X	X							X					
GROUND COVER	Water	G				X																				
	Mulch maintenance	G						X												X	X					
	Plant replacement	IS, OC, C, G										X	X	X												
	General inspection	IS, OC, C, G				X									X					X	X					
PERENNIALS	Weed	G				X																				
	Divide plants	IS, OC, C, G							X											X	X					
	Water	G				X														X	X					
	Mulch maintenance	G						X												X	X					
ANNUALS	Plant replacement	IS, OC, C, G							X											X	X					
	Plant	G				X																				
	General inspection	IS, OC, C, G				X								X	X	X	X	X	X							
	Weed	G				X														X	X					
GRASS	Remove dead plants	G				X														X	X					
	Water	G				X														X	X					
	Mulch maintenance	C, G						X																		
	General inspection	C, G				X								X	X	X	X	X	X							
	Mow	G				X														X	X					
	Edge	G						X												X	X					
	Water	G							X											X	X					
	Weed	G								X										X	X					
	Fertilize/lime	IS, OC, G						X												X	X					
	Aerate	IS, OC, G							X											X	X					
	Seed or sod	IS, OC						X												X	X					

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MAINTENANCE ACTIVITIES SCHEDULE

ITEM	ACTIVITY	BY WHOM	MONTH IN WHICH ACTIVITY IS PERFORMED																						
			D	W	M	T	W	Th	F	S	S	A	M	J	J	A	S	O	N	D					
<i>PEST CONTROL</i>	Garden plots	G	X																						
	Common plantings	IS, OC, C, G																							
<i>STRUCTURES</i>	General inspection	IS, OC, C, G																							
	Metalwork repairs	IS, OC																							
<i>SITE FURNISHINGS</i>	Carpentry repairs	IS, OC																							
	Paint	IS, OC, G																							
<i>SITE FURNISHINGS</i>	General inspection	C, G																							
	Carpentry repairs	IS, OC																							
<i>MAJOR EQUIPMENT</i>	Metalwork repairs	IS, OC																							
	Paint	IS, OC, G																							
<i>PLAYGROUND AREA & EQUIPMENT</i>	General inspection	IS, OC, C, G																							
	Safety protocols	IS, OC																							
<i>SIGNS</i>	Repairs	IS, OC																							
	Surface clean-up	G																							
<i>OTHER</i>	Surface renewal	G																							
	General inspection	C, G																							
<i>OTHER</i>	Repairs	C, G																							

NOTE: This is a listing of standard maintenance activities. Additional activities that gardeners and caretakers are accustomed to doing or are necessary because of specific garden situations should not be discontinued; add them to this schedule.

Distributed by Boston Natural Areas Network
 UPDATED 2005

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Community Garden Organizer Month-By-Month Tasks

Adapted from Boston Natural Areas Network - www.bostonnatural.org

January & February:

1. Organize a Leadership Team for your garden group. Hold a meeting for those interested in helping manage the garden.
2. Identify and assign leadership tasks, so no one has an unfair burden.
3. Review your Garden Guidelines; discuss possible changes/additions; agree on rules for distribution at the Garden Sign-Up.
4. Review last year's expenses. Determine if you need new hoses or tools. Prioritize your garden's needs. Determine an adequate, but fair, Garden Dues amount. Consider fund-raising activities for your garden.
5. Contact previous year's gardeners in good standing to see if they wish to return. Determine the number of available plots.
6. Publicize Sign-Up procedures and deadlines.
7. Recruit new gardeners with flyers at community gathering places and housing sites, postings in local newspapers and online sites, social media, and through partner organizations.
8. Review applications/registrations. Establish a waitlist, if necessary.
9. Draw out a site plan, noting plot locations, water system, landscaping, compost areas, storage areas, sitting areas, etc.
10. Identify and approach local businesses for donations of equipment or supplies.



March:

1. Inform all gardeners by written notice and/or phone of the dates for the Garden Orientation and Spring Work Day.
2. Hold Garden Orientation meeting, with all gardeners receiving a written copy of the Garden Guidelines. Sign up gardeners to be mentors for beginning gardeners, shed or compost stewards, or any other regular garden tasks.
3. If plots are still available, use same process listed in #7 above.
4. Invite Master Gardener volunteers and community members to Spring Work Day.
5. Collect a soil sample and have it tested. Share the results with all gardeners.
6. Arrange for compost or other amendments.
7. Prepare soil in plots as soon as weather permits.

April & May:

1. Hold a Spring Work Day, review rules, finalize plot assignments, discuss compost management and trash removal arrangements, etc.
2. Schedule regular Workdays and Celebrations throughout the growing season.
3. Note repairs needed; recruit gardener volunteers or make arrangements through garden owner/organization for repairs to fencing, water system, compost site, etc.
4. Ensure there is a current, attractive, readable garden sign visible to passersby.
5. Use, construct, or repair a garden bulletin board to post announcements and information.

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6. Have a Spring Garden Potluck. Use this time to determine ways the garden can provide a community service, for example donate extra produce to a soup kitchen, host neighborhood gatherings in the garden, plant and maintain flowers outside the garden, provide a plot for a local daycare, etc.
7. Begin to plant and maintain the garden.

June:

1. Re-assign unused plots to next people on the Garden Waiting List.
2. Plant a flower border, if possible.
3. Encourage gardeners to compost, using the agreed-upon management plan.
4. Hold at least one regular, required work day. Keep weeds controlled in the common areas, refresh pathways, prune and maintain trees, shrubs and vines, etc.

July:

1. Plan a Garden Event that includes neighbors, entrepreneurs, and local officials who don't garden there.
2. Recognize outstanding volunteers and gardeners.
3. Hold a regular, required work day. Keep weeds controlled in the common areas, refresh pathways, etc.
4. Encourage gardeners to compost, using the agreed-upon management plan.

August & September:

1. Donate surplus produce to a food shelf or other community organization.
2. Plant fall vegetables.
3. Invite neighbors, businesses, and local officials to visit your garden.
4. Remove weeds, remove pest-infested and diseased plant material (do not compost these).
5. Hold a regular, required workday.
6. Hold a Harvest Party, recognizing outstanding volunteers and gardeners.



October:

1. Organize a fall clean-up date. Plan a rain-date to ensure all plant material, stakes, tools, etc. are cleared out of the garden by the required date.
2. Clean, repair and store tools and equipment.
3. Note repairs needed and make repairs to fencing, water system, compost site, etc. Discuss needed repairs with garden owner/organization.
4. Encourage all gardeners to sow a cover-crop.

November & December:

1. Send thank you notes to all contributors and volunteers.
2. Prepare a Final Report. Include budget, summary of activities, recommendations and priorities for the coming year. Distribute to gardeners and Garden Owner Organization.
3. Garden leadership committee should evaluate garden plots and determine who will be invited back next year. Notify the gardeners of the decisions, in accordance with garden's procedural guidelines.
4. Prune dormant trees, shrubs and vines as required.
5. Have an organizational meeting to evaluate the garden, suggest changes and improvements, choose next year's priorities, and get organized for next season.

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Haven Gardens

A University of Vermont Extension Master Gardener Project

Volunteer Handbook

The Upper Valley Haven's Mission Statement

Vision: We will create a community where people find hope and discover possibility.

Mission: The Upper Valley Haven is a non-profit, private organization that serves people struggling with poverty by providing food, shelter, education, clothing and support. The Upper Valley Haven:

- Welcomes all who enter its doors as equals, respecting their dignity and accepting them without judgment
- Encourages those it serves to develop their capacity for independence and self sufficiency
- Seeks the support and participation of the community
- Is thrifty with its resources, generous in its hospitality and accountable to the individuals and organizations that support it

History and Purpose of the Haven Gardens

The Upper Valley Haven has been in existence on the east side of Route 5, in the area of Hartford historically known as Taft's Flats, since 1980. For 24 years, until 2004, many volunteers tended to the grounds. Their goal was to keep a clean, neat and presentable property, but there was no gardening plan. When the large central building now known as Byrne House was built in 2004, the Town of Hartford established the requirements for the landscaping of the lot. Today, a decade later, we have accomplished much more with the property than was ever expected. We know that ahead of us there are endless possibilities to improve, educate, address critical issues around food, and expand awareness about stewardship of our campus.

In 2006 Master Gardener Catherine Hoyle joined the Haven as a volunteer in the After School Program. With help from friends and Haven staff, Catherine introduced raised bed boxes and a stone raised bed. The children learned how to care for the vegetables and flowers that they planted in the beds, and experienced tremendous pride in their accomplishments. Between 2006 and 2009 Catherine guided the installation of edible perennials on the campus.

Since 2009 the project has continued to expand, and now includes both edible and ornamental plantings throughout the Haven campus: well established asparagus beds, rhubarb, strawberries, blueberries and raspberries, grapes, currants, apple, pear and plum trees, kitchen gardens with herbs and annual vegetables and flowers, perennial beds and ornamental shrubs. Durable and attractive signs (an Eagle Scout project) provide cultivation and harvesting information, supplemented with temporary signs as needed to explain diseases or insects, point out special varieties etc. ("Warning – HOT peppers!").

Sample Volunteer Handbook - Upper Valley Haven, www.uppervalleyhaven.org

In 2014 EMGs began work on a new project to support an essential resource of the Haven: the staff! Staff members of the Haven work tirelessly to address the needs of the most vulnerable members of our community. We believe that caring for the Haven's committed staff is essential to the Haven's ability to respond to the needs of the community. EMGs are taking a currently unused area on campus and turning it into a beautiful staff retreat, a place for a quiet lunch or a moment of meditation during a busy day. Plans are underway for a living wall to create a private space for staff, and new ornamental plantings within to create a place of peace and beauty.

The Haven serves a very diverse population, but most especially the 'everyday person' who is not a horticulturalist or even an experienced gardener. Since 2009 we have seen the need for food in our community increase in ways that none of us could have ever imagined. In 2008 we saw an average of 423 families a month come to the Food Shelf for a week's worth of groceries. Now that number is consistently over 1100 families every month. We have found visitors to the Haven are very interested in our Healthy Eating Program that shows people how to use fresh produce in their meals. Through the garden project we have a tremendous opportunity to educate both the shelter guests who live on the campus, and the people who come to the food shelf, about what can be done on a small plot of land to add to their food supply and their nutrition.

The goals of the Haven Gardens are:

- To educate those using the Haven services about growing some of their own food
- To have food produced on the Haven campus be part of the meals at Hixon and Byrne Houses, included in the Haven's cooking and nutrition education programs, and distributed through the Food Shelf in order to address the critical issues of hunger and nutrition
- To engage the community in volunteer activity with the opportunity to learn about gardening for food production, and
- To publicize the gardens as a metaphor for our Haven mindset of being thrifty and generous at the same time.

How the Haven Gardens EMG team works

The Haven Gardens project is overseen by our EMG Project Leaders. EMGs work both independently and together through the season: preparing beds, spreading compost and mulch, planting, harvesting cleaning up in the fall and planning for the next year.

Email has served as a good communication tool for all of the gardeners to coordinate our work hours, stay current with what has been done in the gardens and what needs prompt attention, and learn about special projects that are coming up. Your input and creativity are valued in this process!

Tools are available on site although some gardeners prefer to use their own.

If you are volunteering during the Haven's regular business hours you are welcome to stop by and see the Volunteer Services Coordinator to check in. You are also welcome to come in, cool off, and refresh yourself with water or other goodies in our café. If you are here after hours you are welcome to use the facilities at Hixon House.

One of the most rewarding aspects of EMG volunteering at the Haven is the opportunity to share knowledge about gardening. Often a shelter guest, staff member, food shelf visitor, or other volunteer

Sample Volunteer Handbook - Upper Valley Haven, www.uppervalleyhaven.org

will stop by to say hello and become curious about what is growing in the gardens. We view these casual encounters as teachable moments for sharing information about plants, food and gardening.

Finally, since the Haven's vision is "to create a community where people find hope and discovery possibility", it should be no surprise that Master Gardeners and others in the Haven community often discover together what we should do rather than simply execute some predetermined plan. We learn from and teach each other.

Expectations for Haven Volunteers

- It is important that all volunteers treat those we serve with the same dignity and respect that they would expect to be treated with. This is the foundation of what we do.
- Volunteers who are interested in becoming involved in any way with clients or guests outside their job description may do so only after consulting with the Volunteer Services Coordinator. We hope for our volunteers to build relationships with those we serve, yet we recognize that a full-time staff person will be more aware of the needs and patterns of our clients and guests.
- Volunteers often become involved with families and individuals who may divulge personal and sensitive information about themselves and their situations. We strive to honor the privacy and dignity of those we serve by behaving with the highest level of integrity and respect when dealing with this information, both while communicating with other volunteers and staff. It is expected that volunteers will not talk about guests outside of the Haven or in public spaces around the Haven.
- When an issue of safety or any other alarming circumstance arises, volunteers are expected to advise a staff person immediately. This is not a breach of confidentiality, but an element of creating a safe and healthy environment. Volunteers are expected to observe reasonable safety precautions in their work and should bring any safety hazards to the attention of their supervisor.
- Volunteers are expected to approach all situations with an open mind, pushing themselves to grow in order to better serve our visitors.
- You may find that kids who live at the Haven are very interested in what you are doing in the garden. Please feel free to engage with the children but remember that it is never okay for you to be left alone either inside or outside with an unsupervised child. This is for the safety of the volunteers as well as the safety of the children.

Things to know

- Always wear your Haven Volunteer badge when you are gardening at the Haven. Especially since we work in areas of the campus not usually visited by the public (the tool shed, for example) your badge will let shelter staff and guests know that you belong.
- The key to the garden shed and the hose key are both kept in the office at Hixon House. A staff person will need to get the keys for you.

- If you open the garden shed please remember to put things back neatly, lock the door, and return the key to the office before you leave.
- Food that is harvested from our gardens should be weighed and noted in our donation log. If you are volunteering during regular business hours staff or volunteers in the food shelf can help you with this. If you are volunteering outside of regular business hours shelter staff will need to unlock the door to Byrne House and help you weigh the food.
- There is always a staff person present at the Haven. If you need staff for any reason but you cannot find them please call the staff cell phone: **802-299-8838**.
- When you are volunteering in the gardens during regular business hours you can always direct people to staff in Byrne House when they have any non-gardening question. If you are working outside of business hours we have found that there are three common questions that it is helpful to know the answer to.
 1. Q: I have food or clothes to donate, where do I put it?
 A: Usually donations are accepted during regular business hours: Monday between 8:30am and 6:00pm and Tuesday-Friday between 8:30am and 4:00pm. But, since you are here now you can leave them. (Non-perishable food and clothing go in the front entryway of Byrne House, by the bread. If someone has perishable food please let the shelter staff know so that it can be refrigerated.)
 1. Q: Where is the AA meeting?
 A: Bev's house at noon on Saturdays.
 1. Q: I'm homeless, hungry, and/or looking for a shower. Who can I talk to?
 A: Please let the shelter staff at Hixon House know that there is someone who needs help and they will handle the situation.
- From time to time gardening tools, bags, etc. have inadvertently been thrown over the fence. For the safety of volunteers it is not okay for anyone to go over the fence to get an item. If you are unable to fish it back through the fence you need to let shelter staff know that your item is over the fence and they will make a plan for retrieving it.

Garden Application

Name: _____

Apartment Number: _____

Phone Number: _____

How many plots are you interested in: _____

Will you be sharing a garden plot with another resident? Yes No

If yes, how many people will be sharing your plot?

1 2 3

List their names and apartment numbers:

Check off the days you would typically plan to be in the garden?

Monday Tuesday Wednesday Thursday Friday
 Saturday Sunday

How many hours a week can you commit to garden maintenance? _____

What would you like to grow in your garden? _____

Would you like to be a garden leader? Yes No

If yes, why? _____

Do you have any fundraising ideas to help with the cost of upkeep? _____

If not selected for a plot immediately, would you like to be put on our waitlist?

Yes No

Signature: _____

Date: _____

Site Analysis: Creating a Base Map

Once you've picked your garden site it can be helpful to create a base map for your site. This will help you to identify what features are already there and analyze how best to fit your garden into the existing landscape.

Step 1: Learn your *pace*.

To simplify measuring your garden site and determining various distances it is helpful to first learn your *pace*. Start by laying a measuring tape out on the ground. To determine your pace start at one end of the measuring tape with your feet together, take one normal walking step with your left foot, then your right; bring your feet together. Wherever your feet land equals one pace.

Step 2: Measure your garden site boundary.

Pace the length of your potential garden site. Count the number of paces you walked, then multiply the number of paces by the length of one pace. This should give you your boundary length measurement.


Step 3: Create a map scale.

Draw the length of the boundary on a piece of paper. Create a map scale by dividing the actual length of the boundary by the length of the boundary line drawn on the paper.

Step 4: Continue to measure and record.

Pace the next boundary of the property from the end point of the first boundary measured. Roughly estimate the angle between one boundary and the next. Record both measurements on your base map. Repeat until all the site's boundaries are recorded.

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Step 5: Record cardinal directions.

Stand at a junction of one of the boundaries and use a compass to determine the direction of magnetic north. Record this on your base map.

Step 6: Fill in the site.

Walk the site; as you go, mark the various landscape elements you notice (some examples are given below). You may want to loosely pace out the location of these elements in relation to the closest garden site boundary. Use symbols to record all significant elements on your base map.

- Vegetation (bushes, trees, grasses, etc.)
- Rocks
- Wet areas, streams
- Sloped areas (rough degree & direction slope is facing)
- Buildings
- Parking areas
- Sidewalks and pathways
- Playgrounds
- Playing fields
- Water sources
- Drains and sewers
- Fences
- Movement through landscape (signs of foot traffic outside of designated walkways)
- Wildlife habitat
- Signs of wildlife
- Sunny areas
- Shady areas
- Potential problem areas (erosion, poor drainage, heavy foot traffic, use of herbicides, pesticides, or other pollutants)
- Other elements (fire hydrants, lampposts, trash cans, etc.)

Resources used:

Kiefer, J. and Kemple, M. (1998). *Digging Deeper: Integrating youth gardens into schools and communities: A Comprehensive Guide*. Montpelier, VT: Food Works, Common Roots Press.

Weiland, L. (2012). *Community Garden Connections Education Manual: A year-round manual for guiding the educational growth of garden leaders*. Community Garden Connections, Antioch University New England.

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Abundant Harvests:

A Guide for Gardening in Small Spaces

Julie Rubaud
Red Wagon Plants, Hinesburg VT

An abundant harvest in a small space can seem like a challenge, but by understanding a few concepts, you can make the most of your small garden so that it meets your needs and brings you joy. Observing plants is the best way to develop garden awareness; making good choices is the best way to avoid “garden guilt.”

Abundant harvests have to do with efficiency:

- The efficiency of the plant taking up nutrients
- The efficiency of the amount of time it takes for the plant to mature.
- The efficiency of minimized waste.
- The efficiency of using your space to its maximum potential.

These are not hard and fast rules, but can be applied at your discretion in any area of the garden you would like to improve. These ideas can work for the spontaneous or lazy gardener (like me) or for the hyper-planner who maps it all out on graph paper ahead of time (like my neighbor). Think of it as cooking without a recipe - once you know a few techniques and concepts, you can explore and have decent results most of the time. And there is no such thing as garden failure - it is just a lesson waiting to be learned.

The big factors:

- Soil - texture, nutrients, compost, fertilizer
- Shape - raised bed, containers, or “in ground”, bed prep
- Water - drip, overhead, by hand, on timers, etc
- Cultivation - weeds, mulching, pests and diseases, season extension, spacing and timing, succession planting, shape of plants
- Harvest - understanding life cycle of plants, post-harvest handling, when to try for multiple harvest or when to cut your losses, cleaning up plant debris.

Soil should be loose and rich and deep.

In a container it should be a pre-mixed potting soil, not garden soil. If the container is large (1 gallon or more) it should have some drainage material in the bottom. Many things work well for this - styrofoam packing peanuts, crushed up plastic pots, gravel, etc. If a pot is very large (3 gallons or more) the drainage material can be a little deeper, up to the bottom third of the pot. It is a good idea to cover the drainage material with a piece of burlap, an old pillow case, or some other type of screen or fabric to keep the soil from washing down into the material that should remain porous.

In a raised bed, it can be a combination of materials including pre-made finished compost, leaf mold (rotted leaves - make a pile in the fall, it’s good to go in the bottom of the raised bed in the spring), peat moss, rotted manure/bedding (a good source is horse farms), garden soil, sand and pre-mixed top soil / compost combinations. The key is to have a mixture of ingredients to re-create the complexity of a living soil system.

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In the garden, the soil should be worked deeply with a 4 or 5 pronged fork, and loosed by hand or with a hoe. Even if you use a rototiller in the garden, the plants will benefit from having the soil loosened more deeply than where the rototiller tines reach. It is a good idea to shovel out the paths of the garden and put the extra soil onto the beds. This essentially makes a raised bed and will allow the roots to grow quickly and deeply in their search for food.

Nutrients can come from compost, granular fertilizer, “Compost Plus” and/or mineral inputs. It is a good idea to get a soil test in your in-ground garden or raised bed. If you are using materials in the raised bed that you know are of good quality, you can skip this, but if your plants look deficient during the growing months, you may opt to do a test after all. Applying granular fertilizer or “Compost Plus” is best done after the plants have had a chance to grow out - either a month or so after seeding or two weeks or so after transplanting.

Water is best done through drip irrigation - either soaker hoses or drip tape. A good source of drip tape is Dripworks. Next best choice is by hand since you can aim the hose nozzle at the soil, and not get the foliage wet. Third best choice is overhead sprinklers: they require less of your time and labor, but they get the foliage wet. Two reasons to avoid getting the foliage wet with overhead irrigation (sprinklers and incorrect hand watering):

1. it rots the plants, and disease can set in. Dry plants tend to be healthier plants.
2. the plants take up water with their roots, not their leaves. You waste a lot of water and the leaves act as a nice umbrella for the roots, making it wasteful. You have to water more than necessary for the roots to actually start drinking.

Watering is best done in the morning - it gives the plants a chance to dry off before night time and supports their busy daytime growth. Watering at the end of the day is not recommended since disease spreads most during humid summer nights. You can water the garden during the middle of the day, and the plants will still have time to dry off by sunset.

Cultivation is simply the act of caring for plants. In larger scale farming, to “cultivate” means to scuff up the soil in such a way that you are removing weeds, usually involving a tractor and some sort of implement. Here we use the term “cultivate” in a broader sense meaning a general discussion of the cultural requirements of common garden plants. The “cultural requirements” of a plant are all the things that a plant needs from humans in order to thrive. For example, the site, the water, the tilth or texture of the soil, the space and the nutrients are all a part of a plant’s cultural needs. To understand what a plant needs, you have to look at these factors:

1. *what is it’s shape?* Shape of plants, physiological structure, and type of cells that make up the roots and the foliage all give you clues to what the plant needs. Thin fibrous roots dry out more than thick, tuberous roots (think of an onion plant vs. a tomato plant). Waxy, shiny leaves are more drought tolerant than matte, thin leaves (think of a succulent like aloe vs. a leafy plant like lettuce). Large plants with broad leaves have very different requirements than skinny tall plants (think broccoli vs onion). The canopy a plant creates is also a clue - plants with a small canopy (onions, celery, leeks) do not cast much of a shadow. This makes them very vulnerable to weeds. Plants that create a large canopy (squashes, cabbages, broccoli, eggplant) cast a large shadow which slows down weed growth. Understanding the shape or growth habit of a plant also helps you maximize the potential of your small garden.
 - a. A tall, vining plant can be trellised.
 - b. A low growing, sprawling plant can be planted on the edge where it spills onto a lawn.
 - c. A tall, skinny plant can be tucked into tight spots.
 - d. A pretty, decorative plant can be planted in the flower bed.

2. *how hungry is it?* Plants that need a lot of fertility are often referred to as “heavy feeders”. One common point amongst most heavy feeders is their life span. A baby lettuce plant that is in the ground for 20 days is going to be a light feeder. A giant, prize winning pumpkin in the ground for 130 days is going to be a heavy feeder. Plants that produce fruit such as tomatoes, zucchini, squash, peppers and eggplant are best fed when in a *vegetative state* (all green leaf growth, earlier in the first 45 days of transplanting); once those plants are in their *fruiting state*, it is best to lay off the fertilizer or compost which support green growth, not fruit growth. The plant has only so much energy, and if it is putting it into leaf growth, it won’t also put it into fruit growth. It is a balancing act since the green growth needs to happen quickly and in a lush manner in the earlier part of the season in order to support healthy fruiting in the latter part of the season.
3. *how thirsty is it?* As in the discussion of shape, a plant’s water needs have to do with its structure, but also with weather and soil type. A garden in sandy soil will always need more water than a garden in clay soils. You can look for cues of thirstiness in a plant and water just as needed. These clues include very slight curling of leaves, a blue-like hue that creeps in (this is very subtle), or a very subtle droop in the way flowers are angled. This type of “reading the garden” takes some observation to understand, but gardening is a lifetime project with countless places to learn. Fruiting vegetables tend to taste better with less water. Leafy vegetables tend to taste better with more water. It is entirely possible to water tomatoes only once every two weeks, even in a drought, and get very tasty fruit. If you did that with lettuce, it would be bitter at best, but more likely it would simply be dead.
4. *how well does it share?* A plant that knows how to share light, water, and nutrients with its neighbors is a plant that does well in small spaces. Radishes are a good example. They can be sown alongside just about any other crop, and they do quite well because of their short life span, lower light requirements, and broader leaves that shade out weeds. Radishes can share. Other examples of plants that cooperate nicely: arugula, baby lettuce, scallions (they are skinny and can go in nooks), cilantro, curly parsley or smaller varieties of Italian parsley, strawberries and wild strawberries, and pansies. Notice....with the exception of scallions, all these plants are low growing, have broad leaves that create a canopy that shades out weeds, and can tolerate a bit of shade that might be thrown by a neighboring canopy.
5. *how well does it compete?* Plants that compete well are plants that are not easily thwarted by dry conditions, weedy conditions, temperature extremes, or low nutrition. You can always increase your harvest and increase your efficiency by knowing which plants have these characteristics. It basically allows you to prioritize garden tasks -you can make the less competitive plants a priority, and save the more tolerant, tough plants for a day when you have a little more time. Working smarter in the garden can increase the harvest, and save you some “garden guilt”, just by knowing when to say “it’s okay if that is weedy, it can wait until the weekend.”

Succession planting is another way to increase your yields. This is the act of planting multiple generations of plants so that you have a continuous harvest. The trick with succession planting is to know a few numbers:

1. the date of the average last frost in spring
2. the date of the average first frost in fall
3. the amount of time it takes for a plant to be harvestable (a.k.a. “days to maturity”)

and two cultural factors:

1. is the crop frost tolerant or not?
2. is it a “multiple harvest” crop or a one time harvest?

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Once you know these numbers and the frost tolerance of a plant, you can make some simple calculations based on your season length to determine how many generations of a particular plant you can grow. For example, head lettuce has about a 40 day life cycle from transplant time to harvest time, and it can tolerate a light frost. This means you can start transplanting it in early May (in Burlington, average last frost is last week of May) or so, and you can repeat the planting of it every week or so, until early September. (in Burlington, average first frost is first week of October). Head lettuce is something you harvest only once, so if you want a nice head of lettuce every two days or so, you would plant 4 heads of lettuce a week, every week from early May to early September. This will give you a continuous harvest from early June until mid-October.

If you are the kind of gardener who “puts in the garden” on Memorial Day and then you never replant, it is likely that you have a big glut of produce at certain times, and then none that is fresh and good at other times. By planting multiple generations of plants, you insure high yields and great flavor. A patch of bush green beans only produces good quality beans for about 2 to 3 weeks. After a while, the beans are tough and sparse on the plant. If you replant a new patch every couple of weeks, you will always have high-yielding, tasty beans. Abundant harvest happen on healthy plants at their prime, and gardens in small spaces require a certain amount of decision making. You always have a choice to pull out tired plants and to replant with new seeds or plants - this is often the most efficient way to have better yields.

Mulch is a great way to keep weeds at bay, and to keep moisture near the root zone. It can also build soils, heat the soil, or cool the soil - all depending on your goal and what the plant needs. You can mulch paths and/or growing beds. Raised beds that are constructed out of wood can also be mulched and the paths around the raised beds can be mulched to minimize lawn mowing if you would like. If you use materials that naturally break down such as paper, cardboard, burlap bags, straw or bark, the mulched paths can become mini compost piles. By layering in materials that block out weeds, you are creating a layer of organic matter that will decompose over the course of a year and can then be shoveled onto the growing beds the following spring. Some mulch materials carry weed seeds so beware. They can still be used effectively in the garden, but best as a layer that is covered up with another barrier such as cardboard or burlap. As it breaks down and heats up over time, the weed seeds lose their viability and will not be a problem the following year. Plastic mulches heat the soil and are great for the heat-loving, fruiting crops.

Harvest and post-harvest handling are other factors that affect the yield in your garden. Being able to plan or predict when you harvest a crop depends on your knowing the life cycle or days to maturity of that crop. It is entirely possible, to plan a garden harvest around certain dates or to plan for having no harvest during vacation times. An abundant harvest is one that happens when you want it. An unwanted harvest is a hassle - you have to get your neighbors to help, or find volunteers for a school garden, etc. Sometimes that works, but it is possible to minimize unwanted work, and under-appreciated produce by timing the plantings and knowing how much to plant of each crop. There are many charts on line that can help you gauge the garden harvest and how much to plant of each crop and when. Johnny’s Selected Seeds has some wonderful on-line tools, as does our own Red Wagon Plants website.

Post-harvest handling includes everything from time of day you harvest, how you pack it into your basket or boxes, and how you store it. Morning is generally the best time to harvest since the field heat has not had too much time to affect the leafy green plants. Fruiting plants can be harvest later in the day. Again, this is a place where you can make a choice by harvesting the right plant at the right time of day. If you only have a few minutes to harvest in the morning, do the leafy greens. The fruiting plants can usually wait until later in the day or even a couple of days.

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Once a plant is cut or picked, it is best to wash it and refrigerate it right away. Again, this is related to an abundant harvest because anything that improves quality reduces waste. Lettuce that is wilted and dirty in the bottom of the fridge drawer is just not as appealing as lettuce that is crisp, clean and ready to eat. A small garden is not a productive garden if what you harvest ends up under-utilized. A good trick is to harvest the lettuce, and when you get in the house, soak it in a basin or large bowl of cold water right away. This takes out the field heat, the leaves absorb some water making them more crisp, and the dirt drops down to the bottom. Lift the leaves out, re-soak once or twice depending on the amount of dirt, and then spin the leaves in a lettuce spinner or by layering between some clean towels. Lettuce treated this way is sure to get eaten, promise!

Plants like broccoli, beans, and tomatoes produce more the more they are harvested. Broccoli will generally make one big head, and then produce what is called side shoots all summer long. These shoots are the perfect size for cooking or eating raw and the more you remember to cut them, the more the plant will produce. Often a broccoli plant that goes into the garden in late April will continue to produce side shoots into mid-December - talk about a high yield!

Most fruiting plants (tomatoes, cucumbers, squash, peppers and eggplant) will also produce more the more they are picked. These do not need immediate refrigeration, and tomatoes should never go in the fridge. A basket full of cukes and zukes can stay on the counter until a time later in the day when you have had a chance to make room in the fridge or have time to make pickles, etc.

Again, a high yield can be a burden or a blessing, depending on how it fits into your life. With a little planning, a very small garden such as a 4' x 8' raised bed can include 2 tomato plants, a cucumber plant and a season's worth of greens. This is often plenty for a single person or a couple. Abundant harvesting is about making choices that are lead to efficiency and no waste. If you use your minimal space for vegetables you will not use, then the space is wasted, if instead that small space is regularly turned over with fresh plants, and old plants are removed, then you will have a high yield of well loved produce. It is always a better choice to remove the garden debris (think bolted lettuce, cabbage stumps, woody radishes) than to let it limp along, tempting disease and pests.

Some good sources of information

- Our website has an extensive list of resources in the "Garden Journal" www.redwagonplants.com
- Johnny's Selected Seeds, High Mowing Seeds, Territorial Seeds, Seed Savers Exchange and Botanical Interests are all reputable seed companies with lots of educational materials on their websites and in their catalogs. These are great sources of free information.
- Cornell Extension has a website for home gardeners that is very helpful, www.gardening.cornell.edu
- Eliot Coleman's books are geared towards vegetable farmers but have very clear explanations of succession planting, timing and spacing. <http://www.fourseasonfarm.com/books>
- Barbara Damrosch, *The Garden Primer* is my favorite all around basic gardening book
- UVM Extension offers soil tests, a plant pathology lab, and a pest identification lab. www.uvm.edu/extension
- Burlington Permaculture. burlingtonpermaculture.weebly.com
- Charlie Nardozi offers a garden coaching program and gives weekly talks on VPR about gardening. charlienardozi.com
- Vermont Community Garden Network offers support to community and school gardens, as well as Burlington-based hands-on garden education. www.vcgn.org

Physical Garden Features

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

Site Selection

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

Optimal Site Conditions

- **Light:** At least 6 hours of direct sun daily.
- **Drainage:** Little to no standing water after heavy rains.
- **Slope:** Garden plots as level as possible; edible landscaping levelness depends on the growing requirements for your plants.
- **Exposure:** Protected from high winds; Avoid low-lying frost pockets.
- **Surrounding vegetation:** Few or no trees, depending on what you're planting (shade-tolerant or sun-loving plants); Look out for problematic plants (i.e. poison ivy, stinging nettles, walnuts, hickories, etc.).
- **Pests & critters:** Pay attention to areas that may have garden pests and animals travelling through the site (i.e. deer, rabbits, woodchucks, skunks, squirrels).
- **Soil:** Test the soil for heavy metals and other contaminants. Visit UVM Extension's website to learn more about soil testing—how to take a sample and where to send it. Your soil test results (and accessibility) will determine if your garden should be in ground or in raised beds.
- **Water:** Ideally a close water source is available. Look for a spigot or potential for installing one on the side of the closest building. If financially and logistically feasible a spigot or pump in the garden or near your plantings is

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the best option to avoid hauling hoses and water lines getting in the way of grounds maintenance.

- **Safety:** Site promotes personal safety. If children are using the gardens/plantings, avoid parking areas and other unsafe areas. If digging, make sure you're not digging on a utility line - Call Dig Safe "811."
- **Accessibility:** Location and layout of site suitable for potential gardener population and for bringing materials (i.e. lumber, soil, compost, etc.) onto the site. Pathways should be 3-4 feet wide to allow for wheelchair access.
- **Size:** If developing community gardens, look for space large enough for the number of potential gardeners, garden infrastructure, a diversity of garden activities, and room for growth. If developing edible landscaping, look for space that will allow for long-term growth of plants (i.e. trees, bushes). In terms of growing space, you can get creative with the space available by using techniques such as vertical gardening, container gardening, rooftop gardening and other space-saving tricks.
- **Ownership:** If the potential site is not owned by the property management company, find out who owns the site to see if you can rent or buy the land. Sometimes land owners will rent to community gardens for a minimal fee. Make sure to have a written agreement that includes a timeframe for notification of any change of status for the property.
- **Visibility:** If possible, your gardens/plantings should be visible by residents. This will encourage involvement and interest, and also prevents produce theft and vandalism.
- **Land use:** Pay attention to how residents and staff use existing spaces. For example, avoid placing gardens/plantings directly where people walk, in recreation or children's play areas, where snow is plowed in winter months, and other heavy traffic areas.
- **Seasonal changes:** Observe the seasons and take into account such factors as the changing angle of the sun, trees dropping leaves and nuts, and snow removal location.

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Communication/Education

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

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

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

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

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

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Growing space

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

Garden Beds

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

Pathways

- ❖ **Material:**
 - Grass—must be mowed/maintained regularly; low cost (maintenance only)
 - Mulch (cardboard & woodchips, plastic & woodchips)—keeps down weeds; must replenish each year; relatively low cost (sometimes found for free)
 - Semi-permanent materials (paving stones, bricks, gravel)—should only need to be maintained every few years; uneven surface; can be expensive
 - Permanent materials (http://www.cacscw.org/special_needs_resources.php)—even surface for navigating garden area; impermeability will change natural storm water patterns of your site; expensive
- ❖ **Width:**
 - If grass, will be maintained by riding mower, push mower, or weed whacker. If the garden is on a property with facilities staff, speak with them about what they would prefer to use and the size of their equipment (i.e. width).
 - Ideal space for foot traffic: 3-4 ft. wide; for 1 wheelchair: 4-5 ft. wide

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Water

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

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

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Crop damage control

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

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

Relaxation/Leisure

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

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

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Garden Structures

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

Shed

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

Compost

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

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Sample Garden Start-Up Cost Estimate

This list is a guide for determining start-up costs for a community or school garden. The actual costs will vary depending on the unique situation of each garden, as well as donations and in-kind services. The estimates are based on a ½-acre garden site with 25'x30' in-ground beds for a total of 20 plots with a 60'x50' common area. For more information and resources related to coordinating a garden and building strong and resilient garden communities, go to www.vcgn.org, or call us at (802) 861-4769.

Professional services	
Permits	\$50
Site design	\$140
Tilling	\$150
Soil testing	\$24
Construction	\$200
Set-up supplies	
Stakes	\$80
String	\$20
Fencing	\$600
Main garden sign	\$300
Other signage	\$50
Compost bin supplies	\$200
Picnic table/bench	\$100
Compost (10 yards)	\$450
Mulch (woodchips, straw, burlap bags)	\$100
Wheelbarrows (2)	\$80
Long-handled tools (20)	\$200
Hand tools	\$40
Hoses	\$60
Watering cans	\$40
TOTAL START-UP COSTS	\$2,464
Extras and Annual Maintenance	
Garden Coordinator stipend	\$1-?
Land rental	\$1-?
Insurance	\$500-\$1,000
Water system	\$100-\$3,000
Shed	\$200-\$800
Shade structure	\$100-\$300
Greenhouse	\$300-\$1,000
Raised beds	\$150-\$300 each
Seeds/starts	\$50-\$200
PR, printing	\$100-\$200
Event supplies	\$100-\$200



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Tips for Approaching Groups/Companies/Individuals for Support

- **Needs.** Identify your needs and the local assets that may be able to help and match them together
- **Close Connections.** Start with asks to the closest connections (ie: friends in business, family members, other community gardeners). These will be the people most likely to support you initially.
- **New Connections.** It's all about personal relationships. Build the relationship (invite to garden, give a gift of flowers/produce...) first before going for the "ask".
- **Expand Your Horizons.** Go beyond the usual cast of characters for community garden donations (ie: hardware stores, garden centers). Consider businesses and organizations already active in the community such as banks, insurance, car dealers, real estate offices and clubs (Rotary, Lions...).
- **Start with the Story.** Have a short, compelling story about someone in the community garden that will be relatable and memorable for the listener. Start with the story, but have facts and your ask in hand, too.
- **Think Outside the Box.** Instead of just asking for money or material donations, think in terms of what the company/group can get out of the ask as well. For example, instead of asking for money for a garden festival, ask a company to sponsor your attempt to break the world record for the longest zucchini bowling game ever (if there is such a record). They get a great PR opportunity (and so do you), while supporting the garden.
- **Think Manpower.** Perhaps a company or organization can't help you with financial or material donations, but they may be able to help with labor. Agencies and companies are always looking for community service projects. This sets the stage for future contributions.
- **PR.** Keep the visibility of your garden program high in the community. Get the local radio station to record PSAs, local paper to write articles, and hold public events/tours/tastings to bring attention to all the good your garden is doing for the community
- **Communication.** It sometimes takes 2 or 3 asks before you have success. Keep on your local businesses and organization's radar and you will eventually get your donation.

Developed by Charlie Nardozi for the **Vermont Community Garden Network**

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For 1, 4 ft. wide x 8 ft. long x 1 foot high Raised Bed

Materials

Item or Service	# Needed	Unit Sold	Cost/Unit	Total Cost
4 in. x 4 in. x 8 ft. Hemlock lumber	12	Board	\$6/board (based on P&P Lumber)	\$72
6 in. long 60d galvanized timber ties	60	50 piece box or Individually	\$30/box or \$0.90/tie (based on ACE Hardware)	\$39
Topsoil/Compost Mix	39 cubic ft. or 1.43 cubic yd.	Cubic yards (whole units)	\$25/1-5 cubic yards (based on Highfields Center for Composting)	\$40
Landscape fabric	_____	3 ft. w x 36 ft. l Roll (Recycled Plastic Weed-block)	\$21.95/roll (based on Gardener's Supply Co.)	\$22
Estimated Total				\$173

Supplies

- Circular saw & accompanying safety equipment
- Square (tool)
- Level
- Measuring tape
- Pencil
- Shovels
- Hammer
- Scissors
- Wheelbarrow or buckets


Notes:

The instructions we've provided are just one way to build a raised garden bed. Many other designs have proven successful. If 4 in. x 4 in. timbers are hard to come by, try using 2 in. x 8 in. boards or other sizes that may lower your cost. If you are using thinner boards you can use long screws rather than timber ties, which can be less expensive.

Depending on your gardeners' needs, you may also want to consider a shorter or higher raised bed design.

In terms of wood used, hemlock is often used in New England for its longevity, decent price, and availability. Cedar and wood/plastic composite are also options, but can be prohibitively expensive. Most importantly, do not use pressure treated wood if you are using the beds for food gardens.

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How to Build a Raised Bed



Twelve 8-foot 4" x 4" timbers are needed to assemble a 4-layer, 4 ft. x 8 ft. raised bed. The lumber will be stacked and each layer will overlap the layer below it at the corners. Here are the four different measurements to prepare.:

- 1) First, trim all timbers to the maximum possible common length, as they may not all be exactly 8 ft. Set aside four boards. These will be used for the sides of layers 1 and 3.
- 2) Measure the width of a timber (as it may not be exactly 4 inches). Double this width and subtract from the length of the timbers cut in step 1. This will be the length to cut the four timbers used for the sides of layers 2 and 4.
- 3) The end pieces of layers 2 and 4 are made by cutting two timbers in half.
- 4) Subtract the doubled timber width from the length of the end pieces of layers 2 and 4. This will be the length to cut the two boards used for the ends of layers 1 and 3.

**Note: A simpler option is to cut all the timbers to the maximum possible common length, then cut four timbers in half for the ends and follow the stacking process as outlined below. The bed will end up slightly larger than 4ft. X 8ft.*




The first layer is the most important as all other layers are built on it. The raised bed box will be sturdiest if the first layer is dug into the ground. Use a square and level to ensure that the first layer is as square as possible.



If the area under the raised bed is grass, the sod can be stripped and composted. If the soil underneath the raised bed is determined by a soil test to have contaminants and/or heavy metals, a layer of landscape fabric can be put under the bed as a semi-permeable barrier that excess water in the bed can seep through. When constructing the frame, each layer is nailed to the layer below it with 6" long 60d galvanized timber ties, spaced every 16 inches. The final step is to fill the raised beds with a topsoil/compost mix. The beds shown below are 16 feet, 12 feet, and 8 feet long.



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Fundraising for Success

To assist your community or school garden in developing sustainability, consider these three questions:

1. Is your garden ready to form a steering committee to provide coordination and leadership?
2. Can your garden rely primarily on donated supplies, materials, and volunteer labor?
3. Is your garden interested in seeking grants and/or ways to generate earned income?

The way in which your group answers these questions will influence the organizational development of your garden program and its evolving leadership structure.



Getting Started/Thinking Ahead Stage:

For most community or school garden projects, the general rule of thumb is to start small and operate the garden on a non-cash basis for the first year or two. Here are some basic strategies:

- 1) Get approval and a pledge of support from the landowner before starting the garden; then renew this pledge of support each year. In the case of a school garden, administrative support is vital.
- 2) Use recycled materials in your garden such as stakes, compost, containers, and lumber.
- 3) Borrow tools and equipment from friends and participants.
- 4) Form a steering committee to plan, make decisions, and secure in kind contributions of materials, publicity, and volunteer labor.
- 5) Secure donations of garden supplies, seeds, plants, and tools from local businesses.
- 6) Apply for mini-grants available to ad hoc groups for specific materials and services.
- 7) Enlist help from Master Gardeners and community volunteers of all ages. For school gardens, be sure that fellow teachers and the custodian are involved in the planning process.
- 8) When seeking assistance, ask people for advice and suggest ways they can participate.

For school gardens, donations of cash and/or materials can be solicited on school letterhead with approval by the school administration. The school PTO may also supply some funds. Small

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grants for materials may also be applied for, with bookkeeping going through the PTO or business office.



For community gardens, it can help to have a fiduciary organization involved (a nonprofit, social service agency, or parks and recreation department) whose letterhead can be used to solicit materials and/or grants. The fiduciary organization acts as a fiscal agent for the garden project and is ultimately responsible for ensuring that funds raised are used for the intended purposes. Garden projects must seek and receive permission from the fiduciary organization when planning projects and raising funds.

Grassroots Fundraising/Budgeting Stage:

In this stage of development, a garden project is on its feet and viewed positively by participants, administrators, and the community. Cash resources are needed to develop infrastructure and expand programs. The garden steering committee is ready to become more formally organized. For most projects, this is the middle stage in developing sustainability. Here are some strategies that can be used:

- 1) Brainstorm ideas and goals for the garden project. Be sure to include input from stakeholders (participants, teachers, administrators, and community members) to build a base of awareness and support for your project. Develop a project folder that includes a wish list for materials, staffing, and program supplies. Before fundraising begins, reach a consensus on how the funds raised will be used.
- 2) Consider grassroots fundraising ideas to generate income and build community support.
 - a) Bake sales, yard sales, coin drops, car washes, and bottle drives require limited cash outlays.
 - b) Fundraising programs, such as selling flower bulbs or T-shirts, require some cash outlay, but may generate higher returns and help build community support.
 - c) Silent auctions and raffles highlight community partnerships by securing promotional donations from local businesses. Sometimes auctions and raffles are combined with a dinner or special event.
 - d) Concessions sales of food and beverages provide exposure for your project at community sporting events and festivals. Food and paper products can often be secured through supermarket donations.

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- 3) Prepare a realistic budget for the calendar year listing projected revenues and expenses. Plan ahead so that revenues are generated before expenses are incurred.
- 4) Open a cash account for your project with the fiduciary organization, PTO, or school business office, or appoint a treasurer and open a checking account (preferably with no minimum balance requirement or monthly fees). Create an accounting system for revenues and expenses, decide on the office location and mailing address for the garden project, and establish who has the authority to spend money from the checking account.
- 5) Try to start building a “nest egg” for unexpected expenses and to carry over from year to year. Keep this amount in reserve and add to it where possible.
- 6) Consider an entrepreneurial project such as a plant sale, or marketing cut flowers, fresh produce, salsa, herbal soaps, or garden crafts. Involve participants in all phases of the entrepreneurial venture.
- 7) Cultivate a team spirit around fundraising, set goals, and celebrate the results. Recognize and thank volunteers, donors, and sponsors whenever possible.

Institutional Fundraising /Permanence Stage

In this stage of development, the garden steering committee seeks funding and institutional support to become a permanent part of the community. Perhaps the major infrastructure of the garden has been installed, and now it's time to enhance education and outreach programs, as well as maintaining fences, raised beds, tools, equipment, and water lines. A deeper level of organizational support and commitment is needed beyond grassroots fundraising and small grants. Some groups evolve into nonprofit organizations, although this step is more complex from a legal and accounting standpoint. Groups interested in gaining nonprofit status will need to develop a clear mission and a detailed long term plan for sustainability.



- 1) Together with your annual budget, develop a timeline and calendar of activities, steering committee meetings, fundraising efforts, work projects, and special events for the entire year. Involve gardeners in this process as much as possible.
- 2) Develop a plan for publicizing your garden to a wider audience. Work up a media list with the names and contact information for local newspapers, radio, and TV stations. Develop a relationship with local reporters and editors, send press releases, and invite the media to special events.

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- 3) Create a brochure or project folder that describes your community or school garden program and provides interested supporters with information on how they can contribute.
- 4) Create a scrapbook that includes news articles, color photos of gardeners, letters of support, and dreams for the future. Make this scrapbook available for viewing at public gatherings, open houses, library exhibits, etc.
- 5) Start building a mailing list and email list of business people, parents, teachers, administrators, garden volunteers, community leaders, local nonprofit organizations, city and town officials, and legislators who support arts, education, and environmental programs.
- 6) Publish a newsletter, and/or write local news articles about your garden. Thank sponsors and contributors where appropriate. Make your goals, mission, and vision well known to readers.
- 7) Cultivate community partnerships with local social service agencies, nonprofits, garden clubs, 4-H clubs, Master Gardeners, scouting groups, service organizations, businesses, and conservation groups.
- 8) Research grants available from foundations and organizations that support community-based gardens, community development, and environmental education initiatives. Get advice from a professional fundraiser about grant sources and proposal writing strategies. For school gardens, obtain teacher and administration support for your plans before writing and submitting a grant proposal.
- 9) Redefine roles for steering committee members so that the areas of fundraising, publicity, program development, and garden maintenance each have leadership. Circulate meeting agendas in advance, record meeting minutes, and develop an effective communications system among committee members.
- 10) As your garden project grows, continue to seek input from participants and community members. Think about ways that your program can publicly give back to the community, perhaps by sharing produce with a food bank or by having a community harvest festival.
- 11) To maintain community support, consider changing some strategies from season to season, and from year to year. When you receive contributions of any kind, acknowledge your donors in word and print. Recognize and thank volunteers. Above all, keep the “fun” in fundraising, and your garden program will likely continue to attract new participants, volunteers, and contributors.

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Installing your Edible Landscape:

Edible landscaping as defined by extension services at the University of Oregon is the use of food producing plants in a landscape. It combines fruit and nut trees, berry bushes, vegetables, herbs, edible flowers, and other ornamental plants into aesthetically pleasing designs. Edible landscaping land use patterns include and are not limited to: Forest Gardens, Intensive Gardens, Orchards, and Shelterbelts

This document is designed to help site managers and housing tenants understand the steps to installing, establishing and maintaining an edible landscape that include fruit-bearing trees and shrubs.

The most important initial step in implementing any land-based project is to analyze and assess the site being considered for development. “ In order to plan the development and management of land, the many factors that are involved should be related in some logical order. The planning of one aspect cuts across others, so some must have preference. Decisions have to be made on all sorts of apparently conflicting items of land planning. We need, also, to have an aim or an object, a basic plan.” -P.A. Yeomans

In short, site assessment is about analyzing the physical attributes such as site location & adjacencies; growing region, climate, and microclimate; and resource availability such as water, soil, and solar energy.

There are several methodologies for analyzing and assessing land. For the purpose of this document an adapted version written by ecological designer and author Dave Jacke is outlined below and will be useful during site analysis and assessment.

*Bear in mind, not all of these items need to be analyzed to develop your landscape. The more information you can gather from this list the better informed you are about where to place the different elements including plant materials in the landscape plan.

1) Site Analysis and Assessment

Scale of Permanence Checklist:

-Climate

- Plant hardiness zone
- Predicted future climate change status
- Annual precipitation
- Wind directions: prevailing, seasonal variations, storm wind directions
- Growing degree days (important for ripening nuts)
- Average frost-free days
- Chilling hours (important for fruit tree dormancy)
- Extreme weather potential: drought, flood, hurricane, tornado, fire
- Heating/cooling degree days

Created by Meghan Giroux of Vermont Edible Landscapes | Page 1 of 4

-Landform

- Slope: steepness,
- Topographic position: mid-slope, hill crest, valley floor
- Bedrock geology: permeability, depth, nutrient content, acidity
- Surficial geology: type of parent material, permeability, depth, stoniness
- Estimated seasonal high water table
- Estimated depth to bedrock, hard pan or impermeable layers of soil
- Elevation
- Landslide potential

-Water

- Existing sources of supply: location, quantity, quality, dependability, sustainability, network layout and features (spigots, pipes, filters, etc.)
- Watershed boundaries and flow patterns: concentration and dispersion areas, including roof runoff patterns, gutters and downspouts
- Potential pollution sources: road runoff, chemical runoff from neighbors, flooding, ponding and puddling area
- Possible sources of supply: location, quantity, quality, dependability, sustainability, cost to develop
- Location of all on-site culverts, wells, water lines, sewer lines, septic systems, old wells, etc.
- Erosion: existing and potential areas

-Access/Circulation

- Activity nodes, storage areas
- Pedestrian, cart and vehicle access points, current and potential patterns
- Materials flow: mulch, compost, produce, firewood, laundry, etc.

-Vegetation and Wildlife

- Existing plant species: locations, sizes, quantities, patterns, uses, poisonous, invasiveness, weediness, what they indicate about site conditions, etc.
- Ecosystems architecture: layers and their density, patterning and diversity, resultant habitat conditions, light/shade, character, quality, habitat types, food/water/shelter availability

-Microclimate

- Define various microclimate spaces
- Slope aspects (direction slopes face relative to the sun)
- Sun/shade patterns
- Cold air drainage and frost pockets
- Soil moisture patterns
- Precipitation patterns
- Local wind patterns

-Building and Infrastructure

- Building size, shape, locations
- Permanent pavement and snow piles from plowing it
- Power lines (above and below ground and electric outlets)
- Outdoor water faucet, septic system, well conditions
- Location of underground pipes: water and sewer line, footing drain, floor drain and downspout lines, tile drains, culverts, other fences and gateways

-Zones of Use

- Property Lines, easements, right of way
- Existing zones of land and water use
- Well protection zones, environmental and other legal limits (e.g. wetlands regulations, zoning regulations, building setbacks)
- Current uses by neighbors and passerby
- Use history and impacts on land, current or future uses

-Soil Fertility and Management

- Soil types: texture, structure, consistency, profile, drainage
- Topsoil fertility: pH, % OM, N, P, K, Ca
- Soil toxins: lead, mercury, cadmium, asbestos, etc.
- Management history
- Soil testing: where to get it done, how to get it done

-Aesthetic/Experience

- Outdoor rooms, walls, define spaces, (walls, ceilings, floors), qualities, feelings, functions, feature
- Arrival and entry experience: sequencing, spaces, eye movements, feelings

2) Designing your Landscaping

Now that you've analyzed site conditions and have a well-informed understanding of where the different elements (including plants materials) should be placed in the landscape it's time to get started on design. If budget allows, hire an edible landscape designer. They can work with you, your organization or housing association project in a variety of different ways to bring your holistic goals to fruition.

-Create a base map that illustrates all of the site structures, including sidewalks, driveways, private and public roads, property lines, fences, utility lines, and all other permanent features. The base map should also include the location of spigots, streams, ditches, setbacks and existing vegetation. Current property surveys, plats and deeds are generally found in the planning/zoning office at your local town office. A quick and dirty way to do this is by utilizing Google maps. Once you've located your site, print it out and use it as your rough base map. Overlay sheets of trace paper adding the site conditions, planting plan and other desired elements. A precise drawing of the landscape should be scaled to allow measurements to be taken from the drawing when the implementation portion of the project takes place. Most landscape plans are drawn to a scale of 1:10, which means that 10 feet on the ground equals 1 inch on paper.

3) Implementing your Design

Research the types of plants you would like to install in your landscape. Are you interested in plants that attract birds, create shade or provide protection from cold winter winds?

Examples:

-Trees and Shrubs that attract birds:

Blackberry, Elderberry, Mulberry, Juneberry, Nanking Cherry, Staghorn Sumac

Shade trees: Black Walnut, Bur Oak, Korean Nut Pine, Chestnut, Sugar Maple

Created by Meghan Giroux of Vermont Edible Landscapes | Page 3 of 4

-Take a soil sample to find out what macro and micronutrients are both present and deficient in the soils. Soil samples should be taken in several locations on the site, combined in a zip-lock bag and sent to a lab to be analyzed. It's best to take your sample with a probe or small shovel six inches below the surface. This is the most biologically active horizon of soil. This practice is the foundation of creating a healthy edible landscape. If you're interested in learning more about your soil type you can find it here: www.websoilsurvey.nrcs.usda.gov

-Now that plants have been identified to install in the landscape it's time to get started. The most economical way to install your landscape is by utilizing bare-root plant materials. If you miss the early season window for planting bare-root trees and shrubs source potted trees and shrubs from a reputable nursery.

- Planting trees and shrubs
 - Remove the sod and pile it next to the hole
 - Remove the topsoil and place it in a second pile
 - Remove the subsoil and place it in a third pile - reverse the order when replacing the soil around the tree or shrub
 - Dig a hole 18 to 24 inches deep
 - Place the tree or shrub in the hole at the same level it was planted in the pot. *When planting grafted fruit or nut trees be mindful to keep the graft (junction where the root stock meets the scionwood) at least two inches above the soil surface in the middle of the hole
 - Fill in the hole topsoil first closest to the roots and then the subsoil on top of that
 - *Be sure to spread out the roots of plants with fibrous roots systems. The opposite for tap-rooted trees - hold the tree upright and fill in the soil around it.
 - Gently pack the soil around the roots to remove any air pockets.
 - Slowly water the new planting with three to five gallons of water

Seed Starting Tips

Start Inside

The following seeds can be started under lights indoors any time from mid-March to mid-May:

Basil*	Cucumbers*	Marjoram*	Sage
Broccoli	Eggplants*	Onions	Thyme
Cabbage	Fennel*	Oregano	Tomatillos*
Calendula	Leeks	Parsley	Tomatoes*
Chives	Marigolds*	Peppers*	Zinnias*

Cool Weather Crops

These plants can be sown directly in the garden as soon as the soil can be worked, usually in mid-April, even if it might still frost some nights:

Cress	Lettuce	Radish
Kale	Peas	Spinach

Start Outside

These seeds should be sown directly in the garden:

Beans	Chard	Melons*	Soybeans
Beets	Cleome*	Nasturtiums*	Squash/Pumpkins*
Carrots	Corn*	Poppies	Sunflowers

* Don't plant (or transplant) these seeds outside until all danger of frost is past, usually mid- to late-May.

Decoding the Seed Packet

All seed packets are slightly different, but most give information about planting, growing and harvesting.

Carrot: Type of vegetable; below, its scientific name. 'Red Cored Chantenay' is the cultivar; description may include best ways to use.

Carrot
Daucus carota subsp. sativus

Red Cored Chantenay: A workhorse variety from 1929 with great flavor and deep orange-red color. An excellent variety for bunching with tall tops. Perfect for carrot coins.

Planting Tips: Hardy Biennial (producing seed in its second year). Direct seed as soon as soil can be worked through mid-summer. Transplanting is not recommended. Optimal soil temperature for germination is 55°-75°F. For storage carrots direct sow seeds 3-4 months prior to first frost date. Carrots are best harvested following a frost but before ground freezes.

Seed Planting Depth	1/4 inch
Seed Spacing	1/2 inch
Days to Germination	14-21
Plant Spacing After Thinning	1-2 inches
Plant Height	8-12 inches
Days to Maturity	65

Depth: How far to put the seed under the soil.

Spacing: How far apart to put each seed. Usually is too close for mature plants, allowing for some seeds to not grow. You might have to thin the rows later.

Germination: How long it will take for the young plant to appear above the soil.

Spacing after thinning: How far apart each plant should be so that they have room to grow. In this example, enough sprouts should be removed from the row so that there is 1-2 inches between remaining plants.

Height: How tall a plant will get when it is mature, or full-grown.

Maturity: How long it will take for the vegetable to ripen. For seeds sown directly into the garden, measured from date of sowing. When seedlings are transplanted, this can mean from date of transplant into garden.

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Adapted from High Mowing Seeds and Grow Team O.N.E.



Seed Starting Basics

I know what I want to grow! Now what?

When planning your garden, remember to choose things you like to eat! Once you decide what you want to grow, plan to start a few extra plants in case some don't make it and to swap with other gardeners.

When to start?

Plants should be about 6 to 8 weeks old when they go into the garden, depending on the weather. That means starting them indoors in mid-March or early April. (See list on the other side for seeds that should be planted directly in the garden.)

What containers do I use?

You can use nearly any container to start your seeds — seed starting trays, plastic cups, yogurt containers — or make your own newspaper pots. Wash all containers with hot soapy water and rinse with a dilute solution of distilled white vinegar and water. Make sure there is enough room for the roots as they grow. If you start broccoli in an egg carton, for example, you will need to carefully move each plant to a larger pot after a couple weeks so that the roots can spread out. Don't forget holes in the bottoms of the containers so the water can drain out!

What soil do I use?

Sterile potting mix helps keep diseases from being passed on to the plants. A common disease of young indoor plants is damping-off. This is a fungal disease that makes seedlings wilt right at ground level and eventually die.

How do I plant them?

Add some water to make the dirt moist and fill your pots. Check the back of your seed packet for planting depth. Lightly cover larger seeds with soil and press gently to make sure there is contact between the soil and the seed. Tiny seeds, such as lettuce seeds, should be only dusted with soil. Don't forget to label your pots.

Where do I put them?

Cover the containers with plastic wrap, tray covers, or glass and place them somewhere warm (about 70°F). Make sure the soil stays moist, but not wet. As soon as the sprouts pop through the soil, move them to a sunny window, into a greenhouse, or under grow lights. Plants need lots of direct light to grow strong. If they grow tall and thin and reach toward the light, they need more sun. Turn them often so they grow straight. Using grow lights will make sure that your starts plants have all the light they need. You can use ordinary fluorescent shop lights or buy a grow light unit.

The Great Outdoors

When spring arrives, you can transplant the plants into the soil. But not so fast! Your plants are used to the cozy house and may be shocked at the cool winds and bright sun. You need to harden them off, or get them slowly used to the outdoors, before they move to the garden. About a week before transplanting, put them outside in the morning sun for a few hours; after a couple of days, leave them outside in the afternoon, too. Finally, they can stay out all night. When it is consistently 60°F in the day and there is little chance of frost, it should be safe to plant them in the garden.

Frost Warning!

If you are afraid of a cold night doing damage to new transplants, cover them with a bucket, milk jug, or a sheet draped over stakes.

Planting and Harvesting Calendar

Use the following table as a guideline of when to plant and harvest your vegetables, not as a strict rule. The weather will be a better indicator of when to plant, and garden conditions such as sun, water, nutrients, and temperature will decide when vegetables are ready to be picked.

Key:

- Sow seeds in garden
- TP Transplant seedlings into garden
- Span of harvest dates

If there is more than one • in a season, it means the crop can be planted several times for multiple harvests — this is also known as succession planting.

	April	May	June	July	August	Sept.	October	Nov.
Basil			•		—	—		
Bean		•		—	•	—		
Beet		•		—	—			
Broccoli	•	or TP			—	—		
Brussels sprouts		TP/•				—	—	
Cabbage	•	or TP			—	—		
Calendula			•		—	—		
Carrot		•			—	—		
Cilantro		•	—	—	—	—		
Cucumber			•	—	—	—		
Dill		•		—	—	—		
Eggplant		TP			—	—		
Garlic					—	—	•	
Kale		•	—	•	—	—	—	—
Leeks		TP					—	—
Lettuce	•	—	•	—	•	—	•	—
Marigold		•			—	—		
Nasturtium			•		—	—		
Okra			•		—	—		
Onions		TP			—	—		
Parsley		•	—	—	—	—	—	
Peas	•		—	—	—	—	—	
Peppers			TP		—	—		
Potatoes		•	•		—	—		
Radishes		•	—	•	—	•	—	
Spinach	•		—	—		•	—	
Swiss Chard	•		—	—	—	—	—	
Tomato		TP			—	—		
Tomatillo		TP			—	—		
Winter Squash			•			—	—	
Zucchini		•		—	—	—		

Garden Glossary

ANNUAL: A plant that lives its entire lifespan, from seed to flower, in one season. Annuals die when it gets cold again, but its seeds go on to grow the next year. Examples of annuals are lettuces, tomatoes, peppers, and marigolds. See PERENNIAL.

BOLT: When a plant grows tall and puts out flowers; when it goes to seed. Often this makes the vegetable, especially lettuce, taste bitter or strong.

COMPOST: The rich fertilizer created by the decomposition, or rotting, of plant and animal products. Compost also adds structure to soil, helping it to hold water and air.

COVER CROP: Plants that are usually planted in the fall and dug into the garden in the spring to protect the soil and add nutrients. Rye, wheat, oats, and clover are common.

CULTIVAR: Another word for variety. Different cultivars of tomatoes, for example, are different shapes, colors, and have distinct flavors. Some are more resistant to pests and disease than others.

CULTIVATE: 1) To loosen or dig up the soil, removing weeds. 2) To grow vegetable and fruits, as in "she cultivates eggplants."

CURE: To let certain vegetables dry in order to prepare them for storage.

EROSION: The loss of soil to wind (blowing away) or water (washing away). Plant roots help to hold the soil and keep it from eroding. Cover crops are important during the winter months for protecting soil.

FERTILIZE: To feed plants by adding nutrients to the soil. Compost is a great organic fertilizer.

GERMINATE: When a seed sprouts and grows its first leaves and root.

HARDEN OFF: To get seedlings grown indoors slowly used to the outdoors before they move to the garden.

HARDY: Generally means vegetables or herbs will survive cold temperatures, sometimes even the winter.

HEIRLOOM: A variety of seed that people have planted for a long time. Since it is "open pollinated," which means natural factors such as wind and insects pollinate the flowers, seeds from heirloom cultivars can generally be saved and used the next year. See HYBRID.

HYBRID: A hybrid seed is the result of carefully crossing one plant with desirable features to another to create offspring with the best characteristics of both parent plants. Usually these include increased productivity, disease resistance, and flavor. This process has to be repeated every generation, so seeds saved from hybrids are not like their parents. See HEIRLOOM.

LARVA: The immature or "baby" form of an insect. Usually a larva will look very different from the adult. For example, a grub is a beetle larva, and a caterpillar is a butterfly larva.

MULCH: A covering of leaves, straw, grass clippings, or other material on a garden. Mulch helps conserve water and suppress weeds. Some types of mulch, like black plastic sheeting, can help warm the soil.

ORGANIC: Generally means a garden that is maintained without the use of chemicals, pesticides, herbicides, or synthetic fertilizers. Instead, it uses compost, hand-weeding, and natural techniques to control pests and diseases.

PERENNIAL: A plant that sometimes goes dormant, or appears to die, at the end of the season but returns the next year. Examples of perennials are asparagus, rhubarb, strawberries, and sage.

RAISED BED: A box-like frame that is lined with special fabric material and filled with soil for planting your garden.

SEEDLINGS: Young plants. Sometimes called TRANSPLANTS, especially when moved to the garden after being grown indoors. Also see START.

SET: Mostly refers to onions. These are purchased young plants that were overwintered and are ready to plant in the spring. They are another way to give onions a head start.

SOW: To plant seeds.

START: A young plant grown indoors to give it a head start so that is larger and stronger when placed in the garden. Also refers to the act of growing seedlings indoors, as in "starting tomatoes inside."

THIN: To remove some seedlings so that the remaining ones have room to grow. You can pull up seedlings to thin them, but snipping them off with scissors is less disruptive to the other plants. Suggestions such as "thin to __ inches," means to leave a certain amount of space between plants.

TRANSPLANT: 1) To move growing seedlings from one container to a larger one, allowing for space for their growing roots. Also to move young plants from containers to the garden. 2) Young plants, or SEEDLINGS, can be called "transplants."

TRELLIS: A frame to support climbing plants. Fences, poles, stakes, and strings can also be used.

TROWEL: A tool that is like a small, hand-held shovel. Used for digging holes and planting, and for digging out weeds with deep roots, such as dandelions.

When to Harvest Your Vegetables

There are no precise guidelines as to when to harvest your vegetables, but there are some rules of thumb to guide you. Most vegetables are harvested just before full maturity, for maximum flavor and the most pleasant texture. The following are vegetable harvesting criteria for judging whether your vegetables are ready for picking.

- **Asparagus:** Begin harvesting when spears are 6-8 inches tall and about as thin as your small finger. Snap them off at ground level and new spears will continue to grow. Stop harvesting about 4-6 weeks after the initial harvest, to allow the plants to produce foliage and food for themselves.
- **Beans (Snap):** Pick before you can see the seeds bulging. They should snap easily into two. Check daily. It doesn't take long for beans to go from tender to tough.
- **Beets:** You can harvest and eat the green tops that you thin out of the rows. Beets are really a matter of personal preference when it comes to the right size for harvesting. They are ready any time after you see the beets shoulders protruding at the soil line.
- **Broccoli:** We eat the unopened flower buds of broccoli, so check frequently, especially as the weather warms up, to ensure you don't let the flower heads bloom. Don't expect your home grown broccoli to get to the size of supermarket heads. Harvest when the buds are about the size of a match head.
- **Brussels Sprouts:** The sprouts will mature from the bottom up. You can begin harvesting once the sprouts are at least an inch in diameter. Harvest by twisting off or cutting the sprout from the stem.
- **Cabbage:** The cabbage head will feel solid when gently squeezed. Cabbage needs to be harvested when it reaches maturity or it will continue to grow and split open.
- **Carrots:** Carrots can be hard to judge. The tops of the carrot will show at the soil line and you can gage when the diameter looks right for your variety. If the diameter looks good, chances are the length is fine too. But you will need to pull one to be certain. Carrots can be left in the ground once mature. A light frost is said to improve and sweeten the carrot's flavor.
- **Cauliflower:** As with broccoli, your home grown cauliflower heads will probably never match supermarket size. Harvest when the head looks full and while the curds of the head are still smooth.
- **Corn:** About 3 weeks after the silks form, they will turn dry and brown. The kernels should exude a milky substance when pricked.
- **Cucumber:** Cucumbers race to the harvest with zucchini. Check daily and harvest young. Timing and length will vary with variety. The fruits should be firm and smooth. Over ripe cucumbers can be very bitter or pithy, even before they start to turn yellow.
- **Eggplant:** Slightly immature fruits taste best. The fruits should be firm and shiny. Cut rather than pulling from the plant.
- **Garlic:** The garlic tops will fall over and begin to brown when the bulbs are ready. Dig, don't pull, and allow to dry before storing. It's best to simply brush off the dirt, rather than washing.
- **Kale:** Kale leaves can be harvested throughout the season. They should be a deep green with a firm, sturdy texture. Kale flavor is best in cooler weather.

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- **Kohlrabi:** For the best texture, harvest once the kohlrabi bulb has reached about 2-3 inches in diameter. The bulbs become tougher as they grow and age. Pull or slice at the base.
- **Leeks:** Harvest leeks when they are about 1 inch in diameter.
- **Lettuce (Head):** Harvest once the head feels full and firm with a gentle squeeze. Hot weather will cause it to bolt or go to seed rather than filling out.
- **Lettuce (Leaf):** Harvest the outer leaves once the plant has reached about 4 inches in height. Allow the younger, inner leaves to grow. Leaf lettuce can be harvested in this fashion for most of the summer.
- **Muskmelon:** There are many varieties of muskmelon, but a general rule of thumb is that the color should change to beige and the fruit will ‘slip’ from the vine when lifted. You should also be able to notice a sweet smell when ripe.
- **Onions:** Onions can be dug once the tops have ripened and fallen over. Allow the onions to dry in the sun.
- **Parsnips:** Parsnips taste best if they are left in the ground until after a frost or two. They can be left in the ground over the winter and harvested in the spring. In cold areas, they should be mulched for the winter.
- **Peas:** The pea pods should look and feel full. Peas are sweeter if harvested before fully plumped. Peas really need to be tasted to determine if they are sweet enough.
- **Potatoes:** ‘New’ potatoes can be harvested when the tops start to flower. Carefully dig at the outer edges of the row. For full size potatoes, wait until the tops of the potato plants dry and turn brown. Start digging from the outside perimeter and move in cautiously to avoid slicing into potatoes.
- **Pumpkins:** Once the pumpkins have turned the expected color and the vines are starting to decline, check to make sure the skin has hardened enough that poking it with your fingernail will not crack it. You don’t want to pick your pumpkin too soon, because it will stop turning orange once it’s cut, but don’t leave them out if a hard frost is expected.
- **Radishes:** Radishes mature quickly. You will see the shoulders of the bulbs popping out of the soil line. If left too long, they will become tough and eventually go to seed.
- **Rutabaga:** The bulbs should be about 3 inches in diameter, generally about 3 months after setting out. Rutabagas can be mulched, left in the ground and dug up as needed. Cold weather improves their flavor.
- **Swiss Chard:** As with leaf lettuce. Cut the outer leaves and allow the center to continue growing.
- **Spinach:** Spinach goes to seed quickly. Harvest by cutting at the soil line before you see a flower stalk beginning to shoot up.
- **Squash (Summer):** Pick young and check often. The skins should be tender enough to poke your fingernail through.
- **Squash (Winter):** Color is a good indicator of winter squash maturity. When the squash turns the color it is supposed to be, cut from the vine. Do not let winter squash be exposed to frost.
- **Tomatoes:** Harvest tomatoes when they are fully colored and slightly soft to the touch. Gently twist and pull from the vine.
- **Turnips:** The turnip shoulders should be about 2 to 2 ½ inches in diameter at the soil line, when ready. Harvest once they reach maturity. Overripe turnips become woody.
- **Watermelon:** The white spot on the bottom of the melon should change to a deep yellow when ripe. Some people can hear a change in the sound made when the melon is thumped with a finger. It should make a hollow sound when ripe, but this is a skill that must be developed.

HOW ARE WE DOING?

- 1) Successful garden leaders **continually check in** with how effective they are at meeting gardener needs. Some basic questions to start with:

How much do we do?

How well do we do it?

Is anyone better off?



- 2) Below are a few ideas for **measuring your garden's success**. Most importantly: know your gardeners, ask them questions, and listen. Make sure your gardeners know that their opinions matter and that they can say what they feel without risk. And encourage creativity when you're asking for feedback!



❖ **Produce scale**—Weigh garden harvest.

❖ **Garden Journal** (either personal or group)—Gardeners take notes on when crops were planted, how crops grew, when crops were harvested, and other things about what they saw, thought, felt, and learned in the gardens. This could be a book kept in the garden shed or an online blog.

❖ **Photo Journals**—Gardeners document all of the above in photos or video.

❖ **Taste Tests**—vegetables, fruit, or herb tastings. Gardeners can vote on favorites or comment on the flavor, texture, etc.

❖ **Written Surveys**—Pre and post-season surveys allow you to track basic info to learn more about your gardeners as well as how the garden effects their lives

❖ **Interviews**—Ask specific questions so gardeners can share their experiences and voice ideas and concerns.

❖ **Observation**—Pay attention to what's happening out in the gardens. What's growing & how? How many, how often, & when are gardeners spending time in the gardens? What changes do you notice in attitude, participation, and responsibility?



- 3) When you're measuring what's going well and what is not, don't forget to ask: **How can we do it better?** Take time for reflection, early and often. Start by highlighting what your garden does well and then discuss what could make it better.

- 4) **How will you share it?** Information can be collected for many different reasons. From the beginning, keep in mind how you plan to share it. A few ideas: share in an end-of-season garden meeting, send to local papers, include in a grant proposal, keep a blog, and share through online social media.

Garden-based evaluation tools to check out:

- Farming Concrete, *Five Borough Farm Data Collection Toolkit*
<http://farmingconcrete.org/toolkit/>
- Cornell University Cooperative Extension, Cornell Garden-Based Learning, *Evaluation Toolkit*.
<http://blogs.cornell.edu/garden/grow-your-program/evaluation-toolkit>
- American Community Gardening Association, Sample Evaluation Tools:
<https://communitygarden.org/resources/sample-evaluation-tools/>

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