

Gray Community Agriculture Adaptive Plan DRAFT



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City of Portland

Alex Marshall, Parks Director Troy Moon, Sustainability Director

Town of Gray

Dean Bennett, Recreation Director Kathy Tombarelli, Town Planner Community Economic Development Committee

Town of Gorham

Gail Platts, Gorham Recreation Kathy Garrard, Gorham Village Alliance

Town of New Gloucester

Scott Hastings, Town Planner

City of South Portland

Julie Rosenbach, Sustainability Director

Karl Coughlan, Acting Parks and Recreation Director

Community Organizations

207 Permaculture

Rachel Rumson Cultivating Community

Rowen Gorman

Cumberland County Food Security Council

Colleen Donlan Lauren Hickey

Maine Organic Farmers and Gardeners

Lucy Cayard

Maine Foodscapes

Ali Mediate

AmeriCorps Stewards

John Clark

Laura Heinlein

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Community Agriculture Definitions

- Community Garden Community gardens are a collaborative effort between gardeners, municipalities, or community partners to provide access to gardening space for those who may not have safe or productive access at their home. Providing a space for neighbors to gather and grow food builds community and positively contributes to food security. Garden plots can be constructed with free or donated materials that are generally low-cost or considered to be waste products. Common materials include partially composted horse manure, leaves, newspaper, cardboard, wood chips and seaweed. While most community gardens are built on publicly owned land, some may be located on privately owned or semi-public spaces.
- **Containment** Used in a soil contaminant context. Recommended practices when gardening in an area with high-risk soil. For example, suggested containment practices include preventing contact with the contaminated soil by creating barriers. For example, the contaminated soil can be covered with a semi-permeable barrier that allows water to pass but not contaminated soil particles, and then the barrier can be covered with a thick layer of clean soil. After encapsulation, the area may be used for raised bed gardening.
- CSA Community Supported Agriculture is a system consisting of individuals who pledge support to a farm operation. Traditionally, CSA members, or shareholders, buy a share of the farm's production prior to each growing season, and receive regular distributions (weekly, bi-weekly, monthly) of the farm's harvest throughout the season. This funding allows farmers to receive necessary capital at the start of every season. Through a CSA, shareholders and farmers agree to share the risks and rewards of the growing season.
- **EQIP** Environmental Quality Incentives Program, a program ran by NRCS. The program provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits.
- **Food Desert** An area in which at least 33% of the population has low access to a healthy food retail outlet. Low access is defined as more than 1 mile from a supermarket in urban areas, and more than 10 miles from a supermarket in rural areas.
- **Gleaning** The act of collecting leftover crops from farm fields after a commercial harvest, or when commercial harvest is not economically profitable. This practice dates back over 2,000 years, and has seen a resurgence recently. Today, volunteer groups recover what is not harvested, and provide it to community members in need.
- Land Trust- Land trusts work to conserve lands through various means, including
 purchase of land outright or by holding development rights. They also serve as stewards
 for conserved land, managing it for low intensity use by the public. In some cases land
 trust-managed land provide an opportunity for community agriculture projects, foraging,
 or other activities.
- **NRCS** Natural Resource Conservation Service. USDA agency who provides technical and financial assistance to farmers and ranchers.

- Mitigation Used in a soil contaminant context. Recommended practices to minimize
 risk of interaction with lead-contaminated soil. For example, suggested mitigation
 practices include washing hands and gardening clothes well after touching soil, adding
 compost to lower soil lead concentrations, and avoiding growing leafy and root
 vegetables.
- **Perennial Agriculture/Food Forests** A system of low-maintenance plants which mimic the ecological relationships of nature. These plants are selected for their edible properties, medicinal properties, or general usefulness towards agricultural uses. Their designs are comprised of layers (similar to a natural forest), which are suitable to the site and promote biological activity.
- **Permaculture** The conscious design and maintenance of agriculturally productive systems which have the diversity, resilience, and stability of natural ecosystems.
- Regenerative Agriculture- Agriculture practices which focus on rebuilding soil organic matter and restoring degraded soil biodiversity resulting in carbon drawdown and improving water quality.
- **Remediation** This is the practice of physically removing contaminated soil from a site. It is generally expensive and presents challenges for transport and disposal of the toxic materials removed. This strategy may be indicated only if certain criteria are met such as: Very high levels of contamination, use by sensitive populations, and ample financial resources being available.
- **Rural** Typically defined by the USDA Economic Research Service (ERS)¹ as some combination of; open countryside, rural towns (places with less than 2,500 people), and urban areas with populations ranging from 2,500 to 49,999 that are not part of larger labor market areas (metropolitan areas).
- **Urban** Defined as an area where the Census Bureau finds an urban nucleus of 50,000 or more people. This may or may not contain an individual city of 50,000 or more people.
- USDA US Department of Agriculture. Government agency which provides significant funding and resources for agriculture projects, including community projects and commercial-scale farms.
- Vermiculture The practice of intensively farming worms to accelerate decomposition
 of organic material into compost. The compost created by these worms is high in
 nutrients.

¹ "Rural Classifications - Overview." October 2019. https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/

Introduction

This adaptive Community Agriculture Plan or "CAP" is intended for use by the Town of Gray to support a more sustainable and resilient locally based food system. It seeks to accomplish this by empowering local people and organizations to play a greater role in food production, processing, and distribution.

As noted by many Gray residents during the early COVID-19 era, in Spring, 2020, Maine is at the end of long supply chains, and its food systems are subject to significant disruptions. Evidence of public desire for greater food



Figure 1: The COVID-19 pandemic sparked an intense interest in local food production (April 2020).

independence can be seen in drastic shortages of supplies such as seeds, seedlings, and chicks in both the 2020 and 2021 growing seasons.

Increasing Maine's consumption of food from local sources has been recognized as a key goal of Maine's climate action plan² released in December, 2020. The plan calls for Maine to increase food consumed from state producers from the 2020 level of 10% to 20% by 2025 and to 30% by 2030. The plan notes that broad-based cooperation between individuals, organizations, and multiple levels of government will be required to meet these ambitious goals. Supporting community agriculture will play a crucial role by both increasing demand for locally produced food as well as supply.

This CAP begins with an introduction to "Community Agriculture" concepts and definitions. It provides an inventory of the Town of Gray's existing community agriculture infrastructure and capacity, including key organizations and their roles in community agriculture initiatives. Recommendations are provided for expanding community agriculture installations, programming, and policy which will support moving the community towards a sustainable and resilient food system. It concludes with recommendations for keeping this plan current through an "adaptive planning" process.

² "Maine Won't Wait, A Four-Year Plan for Climate Change". December, 2020. https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf

What is Community Agriculture

Community agriculture in contrast with

"Community Agriculture" is an expansion of what is often described as "urban agriculture". Urban agriculture has been practiced since the dawn of cities and continues to be practiced today even in our largest metropolises. We use the term "community" in place of urban to describe the initiatives included in this plan in order to better reflect societal and technological changes that have fundamentally upset the traditional definitions of "urban" and "rural" land uses.

"individual" or traditional agriculture is a developmental approach to food systems that is integrated in the community and emerges from a culture of mutualism and succeeds when the community engages with land resources (Attachment A: Community Agriculture Defined). While there is some overlap between several of the elements, in general "individual" agriculture includes larger-scale commercial farms

that receive USDA subsidies. Many of these farms



Figure 2: A large scale "individual" agriculture farm (Sept 2020).

exist in Maine, and they form a crucial part of our local food system. In some cases, "individual agriculture" may support "community agriculture" initiatives, but not necessarily. For example, a farm may offer agri-tourism opportunities such as educational programs to learn how to prune apple trees. The educational program would serve as a community agricultural initiative.

Small scale agriculture is not new, nor is institutional support for it. For example, "Victory Gardens" were encouraged to increase food supplies in the United States during both world wars. However, many new types of initiatives have been developed to expand the capacity of community members to grow and process local food. The intent of this plan is to outline how the Town of Gray can foster these activities in the current era. Gray's Community Agriculture Plan is a development program that aligns local food culture, current resilience trends. It merges when people have access to land.



Figure 3: A community agriculture initiative in Portland (Aug 2020).

Community Agriculture Benefits

The community agriculture activities described in this plan will supplement and build on existing efforts to support traditional commercial farming in the state of Maine. By increasing demand for local, in-season products, growing the agricultural labor force, and by protecting prime farmland Maine's agricultural industry will be revitalized. Where the overall goal is to build stronger and more resilient local foods systems, many initiatives are equally as relevant in both rural and urban communities.

Key benefits of supporting community agriculture include:

- Increasing broad-based public awareness of food systems. This includes details about what produce is in season and how it can be prepared. Information on permaculture design can help maximize the use of smaller spaces to provide much greater benefit, and with lower maintenance, than a traditional lawn.
- Building community economic
 development. For example, the presence of
 a nearby community garden is frequently
 listed as a valuable amenity in real estate



Figure 4: An introduction to permaculture taught by local permaculture expert, Aaron Parker (April 2019).

advertisements. "Edible Main Street" demonstrations are recognized as a strategy for activating commercial centers, encouraging walking and adding to "quality of place".

- **Provide increased markets for local commercial farms**, making key changes to the "demand" side of the economic equation to meet state goals to increase consumption of locally grown food to 30% by 2030.
- Provides valuable public health benefits.
 Community agriculture helps to address food scarcity or "food deserts", reducing economic or social barriers preventing access to nutritious food. Adding regenerative approaches to producing foods improves the nutrient-density of foods, reducing degenerative diseases.
 Additional physical activity benefits, for example from walking to a local community garden or browsing an edible Main St. walking loop also exist. The Town of Gray can also help reduce pathways for lead exposure, by raising awareness of



Figure 5: Edible Main Street planter in Gorham, Maine (August 2019).

potential lead contamination and value of soil tests for lead screening.

• **Provides environmental benefits for Maine communities.** Community agriculture is a strategy for meeting goals in Maine's climate plan to increase consumption of local food. Restoring soil biomass is one of the best ways to sequester carbon, something that we can do to reverse climate change. In addition, by increasing markets for local agriculture, more farms can maintain their operations rather than be converted to subdivisions. Finally, permaculture designs can provide buffers that reduce runoff of nutrients to waterbodies, creating "edible hedgerows" to meet stormwater management goals.

Plan Development

The goal of this CAP is to serve as a blueprint for the Town of Gray to support and expand its community agriculture programming. It is important to note that individual initiatives should not exist in "silos", but rather linked with each other, and to other community goals. This plan was shaped by The Town of Gray's Town Planner, Recreation Director and Members of the Community and Economic Development Committee, community activists, permaculture educators facilitated by the Cumberland County Soil and Water Conservation District. developed with input from several community. The plan draws on experiences of several other towns including Portland, South Portland and Gorham, and several organizations from Cultivating Community to Maine Foodscapes, to The Resilience Hub, Maine Organic Farmers and Gardeners Association and Maine Food Security Council

Additionally, this plan consulted the Town of Gray's Comprehensive Plan, Canopy Project, and recent Permaculture developments in the Village area. We sense potential for integration with Open Space planning, the Village Area Loop Trail project, and potentially, farm land owners through a "forever farm" initiative. For example, goals in the Comprehensive Plan to make Gray Village more walkable for pedestrians by stimulating active transportation can be addressed by creating an edible Main St, or edible trails demonstration which may additionally be paired with elements of adult or youth education. Designing and building these spaces is an opportunity for community education and engagement.

The recommendations section of this plan includes a number of cross-linked goals. Each section includes notes on how it connects with other linkages, and when common stakeholders are involved.

Community Background

Agriculture History

Gray, Maine is located on land indigenous to the Abenaki people. Colonial speculators from Boston were granted the land on March 27, 1736 by the Massachusetts General Court. The first settlers arrived in the spring of 1738. The settlement was attacked in the spring of 1745 by Native Americans and resettled again in 1751. The town had been without a name until about 1756, when it began to be called New Boston. On June 19, 1778, New Boston Plantation was incorporated as Gray after Thomas Gray, a proprietor.

Over time the town has experienced many changes which have contributed to the community, but which have also resulted in the loss of many unique structures and artifacts. The original land use pattern in Gray evolved around villages, neighborhoods, and industrial settlement areas beyond the settlements were extensive agricultural areas and space for other land-based activities.

Gray has always been the center of commercial and civic activities in the region. Its central location at the intersection of six major roads has allowed Gray Corner to be a hub for commercial trading of goods and industrial activity. Many teams of oxen and horse staged in Gray and local proprietors provided all the services and amenities they need. The Portland-Lewiston Interurban Line, an electric train system that operated with stops in Gray until 1933, was an important way to facilitate trade and industry in Gray.

The Dry Mills settlement area is located around Crystal Lake historically called Dry Pond, for the prohibition ethos of the community there. At first, this area housed sawmills and grist mills that were the main industry for the town. During the 1880s, commercial charcoal was also produced in kilns in the area.

East Gray was the central area for farming and lumbering from 1880-1950. It is located around the intersection of Mayall and Depot Roads. East Gray housed a depot run by The Maine Central Railroad, to transport agricultural and lumber products to market.

The final original settlement area of North Gray was centered around the intersection of the Lewiston and Mayall Roads. As early as 1760, lumber and grain mills were also located here. There was also a pottery making operation, blacksmith shop and general store. The Mayall Woolen Mill, a significant historical landmark from the area, was reportedly the first machine-powered woolen mill in the country. It operated from 1791 to 1905, and then it became uneconomical to continue to operate because of transportation limitations.

Location of parcels currently used for agricultural and tree growth purposes can be viewed in the map below. These properties were identified based on Gray assessing data. Agricultural parcels include properties that are used for crops, hay, and other growing stock, as well as dairy farms, livestock, or equestrian related uses.

Modern Day Agriculture

Gray assessing data indicates that there are 22 parcels enrolled in the Farmland tax program, and 2 parcels that are identified as farmland in the assessing data but do not appear to be enrolled in the Farmland tax program. These 24 agricultural parcels are owned by 19 different individuals, corporations, or trusts. Farmland covers nearly 1,250 acres of Gray, the largest parcel covering 220 acres.

Prime farmland soil, shown in Figure 6, is defined by the U.S. Department of Agriculture as soil that is best suited for producing food, feed, forage and fiber, and oil seed crops. It has the soil quality, growing season, and a moisture supply needed to produce a sustained high yield of crops while using acceptable farming methods. In other words, prime farmland produces the highest yields while requiring minimal amounts of energy and economic resources, and farming it results in the least damage to the environment.

Gray currently has potential to expand active agricultural lands, especially in the central region near major roadways. As with forest resources, a major threat to agricultural lands is encroaching residential development and unsustainable resource extraction.

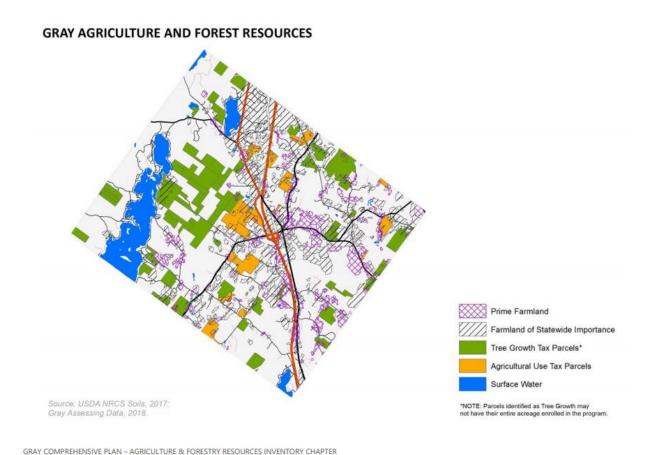


Figure 6: The Town of Gray's Prime Farmland. (2017)

Community Demographics

Understanding population growth and trends is essential to planning for the future and ensuring that the community has adequate services and resources. Population change is the result of two factors: natural increase (the difference between births and deaths) and net migration (the change in people moving to/from the community).

As a nation, our population is growing slowly; however, there are often population waves such as the baby boomers and millennials where there is an especially large cohort. These age structure trends are often observed at the local level as well and have implications for community planning.

Most population growth at the local level is from individuals and families moving to a community (in migration) for economic opportunity or quality of life reasons. Over the past hundred years (from 1900 to 2016), the population of Gray has more than quintupled from 1,388 to 7,988 residents. Between 1900 and 1940 Gray's population consistently remained at between 1,100 to 1,400 residents.

Population growth began to increase with the Baby Boom generation after World War II, and between 1940 and 1970 the town's population more than doubled. Gray's growth rate reached a maximum between 1970 and 1990, when it added approximately 1,500 people per decade. This growth was part of a country-wide trend in migration from urban to suburban/rural areas, which was influenced by Federal policy.

Since 1990, population growth in Gray has slowed to around 900 people per decade. The most recent census estimate of 7,988 people indicates the Town has grown by a little over 200 residents since the 2010 census, suggesting a continuation of the slow and steady growth pattern of the last few decades.

From 2000 to 2016, Gray's population grew by about 17%. When compared to surrounding communities, Gray had one of the fastest growing populations in the region. Windham and New Gloucester grew the most at 18%, while Raymond's population grew by 5%. During this same period Maine's population grew by 4% and Cumberland County's population grew by 9%, from 265,612 to 288,204. Gray accommodated about 5% of Cumberland County's growth over that term.

Gray's racial demographics are predominantly white, with 93.3% of the population. The remaining racial breakdown includes 0.5% African American, 0.7% Native American, 1.9% Asian, 0.9% Hispanic or Latino, and 3.4% reporting two or more races.

The number of households in Gray has grown by 19.7%, adding 519 households between 2000 and 2010. Just over two-thirds of the households in Gray are comprised of families (with and without school age children), representing a 3% decline in the share of family households since 2000. Non-family households have increased by 9%.

In 1999, median household income in Gray was \$72,154 (in 2017 dollars), significantly above the county's average of \$63,429. From 1999 to 2016, real median household income in Gray decreased, going down to \$63,310. This pattern holds true in the nearby municipalities of Raymond and New Gloucester. The percentage of residents below the poverty line is 5.7%, lower than surrounding towns.

Gray has a well-educated population, and many adjacent communities have similar or higher levels of high school and college graduates. Nearly 60% of adults are high school graduates, and over a third are college graduates. By contrast, 50% of adults in Cumberland County are high school graduates, and 44% of adults in Cumberland County have earned a bachelor's degree or higher.

In 2020, Gray was in the top ten for homes sold in Maine. The number of homes sold rose 16.6% from sales in 2019.³

Survey Results

A series of outreach and surveys were completed in 2019 to gain community input for updating Gray's Comprehensive Plan. The following priorities were identified:

- Focus on moving people safely through Gray and getting around town via walking, biking, car, or public transportation
- Protect Gray's rural character and natural resources
- Invest in the Village and community programs

These Top Priorities are not presented in here by priority. These are the three priority subject areas for which there is broad community agreement. These topics should help guide Town Council and staff work plans for the next 3-5 years and beyond as the Town works toward long-term goals.

These three Top Priorities represent groups of individual policies and strategies found in the Town of Gray's Comprehensive Plan. Some of these ideas are carried forward from requirements of the state Growth Management Act. For the most part, though, these Top Priorities are themes that have come up again and again through the public participation process and as part of prior planning efforts.

Protect Gray's rural character and natural resources: Gray residents value the trails at Libby Hill, Pineland Public Reserve, the Interurban Railbed and water bodies such as Little Sebago Lake, Crystal Lake, and Forest Lake for their environmental benefits and community benefits. Critical rural areas and water resources, including surface waters and aquifer recharge areas, should be protected from the impacts of development.

³ https://www.mainebiz.biz/article/maines-2020-top-10-hottest-towns-for-home-sales-reflect-the-years-shake-up

A Community Agriculture survey (Attachment B. 2020 Survey Results) was conducted in September 2020 to gain input into priorities for this Community Agriculture Plan. Survey responses indicated high value in Farmer's Markets, Adult Education for Gardening, Farmland Preservation, Gardening Programs for Youth.

Community Goals

Goals: The following goals are from the 2016 Gray Comprehensive Plan:

- To encourage orderly growth and development in appropriate areas in Town while protecting the State's rural character, making efficient use of public services and infrastructure, and preventing development sprawl.
- To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas.
- To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, shorelands, scenic vistas, and unique natural areas.
- To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.
- To safeguard the State's agricultural and forest resources from development which threatens those resources.

Objectives:

The following objectives identified in the Town of Gray's Comprehensive Plan can be accomplished with activities listed in this Plan:

- Preserve open spaces, forests, and agricultural lands important to the residents of Gray.
- To conserve critical natural resources in the community.
- To coordinate with neighboring communities and regional and state agencies to protect shared critical natural resources.
- To support farming and forestry and encourage their economic viability.

Existing Community Agriculture Initiatives

Community Agriculture Stakeholders

Town of Gray

- Tax Incentive program
- Rec Department
 - o Kids Club
- Community Economic Development Committee
- Planning Department

Schools: MSAD15 principals are interested in incorporating additional community agriculture initiatives into their school system. Currently, several high schooler classes participate in a greenhouse project and there is a Green Tree Society. At the middle school, the "Green Team" does an amazing job with curriculum and growing a school garden.

Businesses:

- Pineland Farm- Have holdings in Gray
- Morrison Center
- Ten Apple Farm- Agrotourist destination for goat walks and fresh goat milks and yogurts, provides manure for community projects
- Caswell Farm- Agritourism destination for classes, local food and weddings
- George Perley House- Provides lodging and classes in permaculture, food preservation, and gardening.
- 207Permaculture- Permaculture planning and development services.
- Pemberton's Gourmet Foods- Food preservation facility, large scale production. May provide info on how to do things.
- Aroma Joes- Contribute coffee grounds for composting and soil amendments.
- Chipman Farms- local produce farm based in Poland. Operates a farm stand just outside Gray Village.
- DiAmeri Acres Livestock Farm in Gray Village

Scout Groups: Boy and Girl Scouts pursuing their Eagle Scout or Silver Badge can achieve these with a partnership with Parks and Rec by supporting efforts to build garden beds or install plantings. They regularly volunteer with the Gray Food Pantry as well.

Churches: Provide groups of volunteers.

Gray Food Pantry: This pantry is located at the church adjacent to the Village food forest project.

Land Trusts: These groups have opportunities to install edible trails and promote foraging opportunities through educational events.

- Presumpscot Regional Land Trust
- Royal River Land Trust
- Matthew Morrill Trust

Ordinance

Land Use Regulation

The initiation of a small farmer's market in 2020 prompted the need for ordinances specific to coordinating a farmer's market. The ordinance, which was recently adopted by the Gray Town Council provides for a two-tiered approach - one requires a simple permitting process for smaller operations with fewer than 25 tables/venders. This will allow small scale markets to quickly get started with minimal Town requirements. Markets with more than 25 tables will require either Staff Review Committee or Planning Board approval based on scale to ensure that

they meet applicable standards and work in harmony with abutting uses. Farmer's Markets are allowed in almost all Zoning Districts and the Town fees for both tiers have been kept minimal to encourage local food production.

Economic Development

The State of Maine offers the following Current Use Programs: Farmland, Tree Growth, and Open Space. These programs are administered through the Town of Gray and enrollment in these programs can reduce one's property tax responsibility. The Town of Gray does not offer any incentives for agricultural land.

Education

Adult Learning

In light of the 2020 pandemic, the interest in gardening and other agricultural topics have increased. Workshops are available through MSAD15 Continuing and Adult Education, Caswell Farms, 207Permaculture, and the GNG Earth keepers Permaculture Meetup.

A survey conducted by Gray Public Access TV found residents are interested in locally produced gardening and cooking shows.

Youth Education

The Town of Gray has multiple youth groups which provide or are provided with agricultural and soil health education including a composting program at the Gray New Gloucester High School supported by Ecomaine, Gray's Recycling Committee, and the GNG Compost Coalition. There is a strong community service and action learning ethic at MSAD15. Both the Excell Program and the Community Service Committee are active in the community.

Boy Scouts and Girl Scouts seeking projects for their Eagle Scout Badge or Silver Badge reliably coordinate with the Town of Gray's Parks and Rec Department to support parks and placemaking projects.

Events

The Gray Blueberry festival began in 2016. It began as the "End of Summer Festival" before establishing a core focus around blueberries to acknowledge our agricultural history and connect it to food security. At this event, the community gathers to celebrate the Town of Gray's history, businesses, and community by developing childhood memories through booth demonstrations and exhibits. The planning committee consists of five members including one Town Councilor.



Figure 7. View from Dutton Hill, Gray across blueberry barrens.

Plantings

Perennial Agriculture

A perennial agriculture planting has been identified for installation in May 2021. Plans for this installation reflect that it will revitalize a currently vacant lot in the center of Gray Village. Blueberry barrens are still located in the Town.

Programs

Community Resources

A volunteer network called Gray New Gloucester Earth Keepers exists on Meetup.com. The network consists of over 230+ volunteers who are looking for ways to be better stewards of the earth, who want to work with others to help create a world that is more peaceful, equitable, healthy, and resilient, who want to reduce their own and others' dependence on unsustainable economic, energy, and food systems, and who are passionate about building a stronger, more supportive local community while learning from and sharing with people and communities around the country and the world.



Figure 8. Community members use green space at Pennel Park, Gray to enjoy a picnic.

Composting

The Gray Recycling Committee supports the GNG Compost Coalition to deliver a composting program at Gray New Gloucester High School. This program focuses on composting in the school's greenhouse.

CSA

A list of available CSAs and markets was created and shared in a newsletter in the spring of 2020 as disruptions to the food distribution chain were occurring due to the COVID-19 pandemic. It was circulated by the Community Economic Development Committee.

Farmer's Market

The Gray Farmer's Market was initiated in 2020 as a reaction to the COVID-19 pandemic. As people transitioned to working remotely, they would miss the farmer's market held in Portland. In its inaugural year it brought together 3 farms to 19 Portland Road which is close to senior housing at Mayview and connected by a Bike-Ped Network Trail. The success of the market

supported the creation of an ordinance specific to holding famer's markets.

To support the continued development of this market, a program has been created to support young farmers as well as those who are Black, Indigenous, and People of Color.

Gleaning & Foraging

Public forests in Gray including Libby Hill Forest and other spaces in South Gray offer foraging opportunities for a variety of mushroom species.



Figure 9. Libby Hill Forest Trails

Recommended Community Agriculture Initiatives

The following proposed recommendations were developed by CCSWCD working with stakeholders from the Town of Gray and are derived from community needs and goals. These recommendations are aspirational and need further public engagement before being adopted by the Town. It is recommended that a municipal staff point person is designated to be responsible for community agriculture programming. This person should already have a role in open space management and will serve as a contact within the municipality for key partners to coordinate action plans. Key partners for implementation have been included in this list. It may be useful to share relevant action plans directly to key partners with a role in implementation.

Three categories are presented for the timeline and indicate priorities, with a starting point of Spring 2021, to facilitate planning:

Short Term: May be completed within the next 2 years.

Medium Term: May be initiated or completed within the next 5 years.

Long Term: Initiation and completion is expected to take place 5 years or longer from now.

The items included in these tables are intended to be used to help align high-level decision making and planning with grassroots activism and organizing. More information on how to implement each action plan is included in the attachment section of the document in the "detailed action plan guides". The detailed action plan guides were developed for Southern Maine communities, and include information that can be used to determine how to create municipal-specific programs. The community may choose various methods to implement these recommended action plans.

Policy

Policy Module	Community Goals	Actions Plan Summary	Timeline	Key Partners
Land Use Regulation (Attachment C1) Consider relation to goals and action plans in Events, Soil Contamination, Economic Development,	Regulation (Attachment C1) Consider relation to goals and action plans in Events, Soil Contamination, Economic Ordinances and policies with community agriculture needs To produce economic benefits, both directly as local food is produced	Create templates or model landscaping plans for subdivisions or site plans that include edible elements that can be referenced or used for development.	Short- medium	Municipal Staff, Regional planning organization, others?
Perennial Agriculture, and Foraging & Gleaning.	businesses To integrate community ag goals into other sustainability initiatives	2. Create policy requiring a percentage of all plantings on Town property to be edible.	Short	Town Council
	To align municipal ordinances and policies with community agriculture needs To produce economic benefits, both directly as local food is produced and indirectly as businesses	3. Establish conceptual edible trail segments in conjunction with Open Space Plan and map.	Short	Open Space Committee
	To assist people with overcoming economic barriers to accessing land for food production	4. Review property tax incentives to ensure property owners who would like their land to be maintained as open space or farmland, in	Medium	Town Council Town of Gray Planning Board

	To promote local food production to achieve economic self-sufficiency goals		perpetuity, can afford to do so.		
		5.	Create a bonus density for Open Space Subdivisions that include community garden construction by developer in the approved subdivision plan.	Long	
Economic Development (Attachment C2) Consider relation	To build workforce capacity through education	1.	Grow Blueberry Festival	Short	Economic Development Committee
to goals and action plans in Events, Edible Main Street, Perennial Agriculture, CSAs,		2.	Coordinate local businesses to fund community projects	Short- medium	Blueberry Festival Committee Economic Development Committee
and Farmer's Markets.		3.	Educate participants in farmer's markets on business skills	Short	
		4.	Use Micropark as platform for community education & natural landscaping	Short	

	5. Use MSAD15 greenhouse as platform for school age (and possibly alumni) education	Short	
To enhance branding of community identity.	Create a plan for edible trail destinations that bring people to Gray, in turn, supporting local businesses.	Short	Town staff Economic Development Committee
To recognize opportunity to invest in public spaces, seek funds from grants and volunteers to do improvements and maintenance.	 Seek grant opportunities that promote local participation in edible projects including paying local contractors. 	Long	Local landscape architects & permaculture designers
To capture synergies between community agriculture & economic development needs.	7. Seek possible public/private partnerships that are mutually beneficial.	Long	Town Staff
To connect the public with commercial agriculture growth.	8. Create an agritourism economy.	Long	Local Agriculture Businesses

Education

Education Module	Community Goals	Actions Plan Summary	Timeline	Key Partners
Adult Learning (Attachment C3) Consider	To improve awareness and understanding of local food systems as a means of community resilience.	Install signage for demonstration sites including the micropark.	Short	CCSWCD
relation to goals and action plans in Events, Youth Education modules, Soil Contamination, and Soil		2. Utilize local cable TV channel to air workshops and garden programs	Short	GCTV
Health.	To inspire the community to engage in locally grown food systems. To increase accessibility to fresh locally grown produce and promote food security. To increase understanding of gardening basics and plant needs and create more successful gardeners. To grow the labor force, grow the local food economy, and create vocational opportunities	3. Hold and promote workshops around food processing and preservation.	Short	Adult Ed Caswell Farms Ten Apple Farms George Perley House
	To promote understanding of ecological relationships as a way to create habitat and food	4. Use Town tree plantings as opportunities to share and build skills	Short	CEDC 207 Permaculture

	sources that are self- sustaining.			Resilience Hub
		5. Species trainings to increase volunteer maintenance	Long	Engage nursery, BSA, GS, other orgs
Youth Education (Attachment C4) Consider relation to goals and	To increase youth understanding of where food comes from and the importance of local food systems. To inspire youth to engage in locally grown	1. Incorporate soil biology into STEM programs at all schools	Medium	Parks & Rec Compost Coalition MSAD15 207 Permaculture
Events, Youth Education modules, Soil Contamination, and Soil Health.	action plans in Events, Youth Education modules, Soil Contamination, and Soil Health. To increase accessibility to fresh locally grown produce and promote food security. To promote understanding of ecological relationships as a way to create habitat and food sources that are self-	2. Incorporate garden education into summer Rec program *Install Garden Beds spring 2021 *Rec kids will help with garden maintenance *Coordinate with Boy and Girl Scouts for support building 3. Tour of Pineland farms with Rec kids as part of	Short	Parks & Rec CCSWCD Town - Grounds & Maintenance Parks & Rec Pineland
	sustaining. To increase understanding of gardening basics and plant needs and create more successful gardeners. To increase the sustainability of our	4. Incorporate high school compost coalition into gardening programs with all schools	Medium	GNG Compost Coalition
	food system in the long term.			

	To grow the labor force, grow the local food economy, and create vocational opportunities.	5. Build agricultural Meskillsets into STEM programs	GNG Compost Coalition Caswell Farms
Events (Attachment C5) Consider relation to goals and action plans in Events, Youth Education modules, Soil	To unite community around food and local agriculture. To improve awareness and understanding of local food systems as a means of community resilience.	1. Grow the Gray Blueberry Festival	Blueberry Festival Committee
and Soil Health.	3 3	Incorporate local foods into Volunteer Awards Banquet	nort Town Staff
	excitement around local food initiatives. To encourage sustainable economic growth based on local agriculture. To shape and share community culture and personal cultures. To connect communities to their ecosystem.	3. Organize events around signature harvests like blueberry harvests and maple tree tapping.	Parks & Rec

Plantings

Planting Module	Community Goals	Actions Plan Summary	Timeline for Installation	Key Partners
Community Garden (Attachment C6) Consider relation to goals and action plans in Land Use Regulation, Economic	To inspire the public to engage in locally grown food systems. To improve awareness and understanding of local food	Identify land for the Town to establish gardens.	Short	Open Space Committee
Development, Events, Youth Education, Adult Learner, Soil Contamination, and Soil Health modules.	systems as a means of community resilience. To increase accessibility to fresh locally grown produce and promote food security. To demonstrate low maintenance	2. Work with developers to support concept in development planning.	Medium	Town of Gray Planning Board
	gardening techniques that can be applied on a large or small scale. To increase community connections, including multigenerational relationships.	3. Designate land acquisition funds for community gardens	Medium	Open Space Committee
	To connect with nature To improve public health through benefits of			

	working outside and increasing access to healthy food To build economic and community development To have a stronger community presence.				
Connecting Growers to Land (Attachment C7) Consider relation to goals and action plans in community gardens and adult education modules.	To assist people with overcoming economic barriers to accessing land for food production. To inspire the	1.	Assess interest in community. Connect with regional partners to coordinate if interest is demonstrated.	Medium	Parks & Rec Economic Development Committee Open Space Committee Cultivating
	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	2.	Connect people that want to farm with private landowners.	Medium	Community (or similar 3 rd party) Land for Good
	To improve awareness and understanding of local food systems as a means of community resilience.	3.	Determine a third party to support implementation	Medium	Maine Farmland Trust Royal River Conservation Trust Reslience Hub GPCOG

	To increase accessibility to fresh locally grown produce and promote food security. To utilize low maintenance gardening techniques that can be applied on a large or small scale. To promote understanding of ecological relationships as a way to create habitat and food sources that are self-sustaining. To increase community connections including multigenerational relationships. To increase multigenerational connections.	4. Explore open space planning options and Town purchase of land to support this program.	Long	More discussion needed for potential partners.
Perennial Agriculture (Attachment C8)	To improve the quality of public spaces and encourage	 Add budget line for maintaining food forests. 	Short	Parks & Rec (buildings & grounds) Town Manager

Consider relation to goals and action plans in Land Use Regulation, Economic Development, Events, Youth Education, Adult Learner, Soil Contamination, and Soil Health modules.	community interaction. To build economic and community development. To increase accessibility to fresh locally grown produce and promote food security.	2.	Build capacity within the municipality to prioritize green space & edible plant maintenance.	Short- medium	Open Space Committee Town Manager Town Planning Board
	To demonstrate low maintenance gardening techniques that can be applied on a large or small scale.				
	To promote understanding of ecological	3.	Activate garden clubs for plant donation sourcing	Medium	
	relationships as a way to create habitat and food sources that are self-sustaining. To inspire the public to engage in locally grown food systems. To improve awareness and understanding of local food systems as a means of community resilience.	4.	Convene conversation with stakeholders on establishing a "Friends of" organization to care for food forests.	Short	CEDC

To increase habitat resilience and species diversity with the addition of perennial crops. To mitigate soil health concerns and build capacity for stormwater infiltration. To utilize space which may not be appropriate for traditional food production or have lower capacity for maintenance.	habitat resilience and species diversity with the addition of perennial crops. To mitigate soil health concerns and build capacity for stormwater	5.	5.	Prioritize Village Center, VALT (Village Area Loop Trail), and Libby Hill trails, Dry Mills School House, and MSAD15, Pennell Municipal Complex properties for perennial agriculture installations.	Short	Local organizations Town Manager
	6.	Utilize edible plantings 100% of the time when replacing plants	Long	Town Planning Board Open Space Committee		
Edible Main Street (Attachment C9) Consider relation to goals and action plans in Land Use Regulation, Economic Development, Events, and Perennial Agriculture modules.	To establish social care of town plantings and distribute workload associated with public landscaping.	1.	Determine a group to coordinate the program.	Short- medium	Town of Gray Economic Development Committee Gray Area Businesses	
	To create synergies with community members, volunteers, and municipal properties. To increase accessibility to fresh produce by bringing edible plants to the forefront.	2.	Establish public private partnerships of perennial plantings.	Short- medium	MSAD15 Church Library Avesta- Meadow View Housing Local Developers	

	To create synergies with community members, volunteers, and municipal properties.				
public to engage in locally grown food systems and local businesses to stimulate local economic activity. To improve awareness and understanding of local food	public to engage in locally grown food systems and	3.	Create ordinance related to business/developments to utilize edible plants	Long	Town Manager Town Planning Board
	4.	Develop outreach materials to promote walking tour between planting.	Medium	Town of Gray Economic Development Committee Gray Area Businesses	
	systems as a means of community resilience.	5.	Support planning of edible plants to ensure accessibility.	Medium	
To facilitate foot traffic in town and bolster the community's economy by creating a highlighting local business. To contribute visual cohesion & aesthetic appeal to the town center, perpetuating a sense of community and reinforcing the town center as a valued space.	6.	Utilize traditional ornamentally landscaped spaces for edible plantings around businesses.	Long	Open Space Committee	
	business. To contribute visual cohesion & aesthetic appeal to the town center, perpetuating a sense of community and reinforcing the town center as a	7.	Prioritize open spaces within the Village Area.	Medium	Town Council Town Manager Town Planner

Programs

Program Module	Community Goals	Actions Plan Summary	Time for Installation	Key Partners
Community Resources (Attachment C10) Consider relation to goals and action plans in adult education modules. To provide the public with access to resources that may otherwise hinder their ability to complete garden or food preservation techniques. To increase accessibility to fresh locally grown produce and promote food security.	to engage in locally grown food systems. To provide the public with access to resources that may otherwise hinder their ability to complete garden or food preservation	1. Establish educational opportunities around community resources by utilizing community members to share information and support programs. 2. Reinvigorate Gray	Medium	BioNutrient Density Association 207Permaculture
	Grange to support community resources.	25/19		
	To assist people with overcoming economic barriers to accessing land for food production. To create economic efficiency by pooling resources for specialized equipment.	3. Establish a Tool Library and seed bank in partnership with a central community building (church, Fiddlehead, private landowner). Consider bulk purchasing options for a seedbank.	Medium	Town Manager Pine Tree Seed Pineland Fiddlehead Local landscape or greenhouses
To enable small scale agriculture to increase capacity through shared costs and risk mitigation in	4. Incorporate kitchen and food processing materials with municipal	Long	Parks & Rec (buildings & facilities)	

	investments.	community center improvements.		
		5. Increase support for meat processing for small scale producers.	Long	
		6. Increase local participation in volunteer network and increase outreach around volunteer opportunities.	Short	Earth Keepers & Permaculture meet-up
	7. Encourage events and schools to incorporate a higher percentage of local food by purchasing in bulk from local farms.	Medium		
		8. Explore opportunities and community interest in: offering micro grants, establishing a fire wood bank, bulk purchasing of garden materials, and root cellar needs.	Medium	
		9. Utilize bulk purchasing for establishing seed banks, sharing gardening materials.	Medium	

Composting (Attachment C11) Consider relation to goals and action plans in youth education and soil systems & fertility modules.	To inspire the public to engage in locally grown food systems.	1. Restore microbiology to soil at the highschool through compost education programs.	Short- medium	207Permaculture GNG Compost Coalition Recycling Committee
medales.		2. Empower highschool students to share knowledge with the community around soil biology.	Short- medium	
	To reduce food waste in landfills To provide the public with an accessible option for composting.	3. Reduce waste being sent to the transfer station.	Long	
	To reduce material costs for community ag projects.	4. Engage highschool students participating in soil biology course to consult on maintaining compost at the park.	Short- medium	
CSA (Attachment C12) Consider relation to goals and action plans in economic development and adult education modules.	To build resilient community relationships, farmers to consumers To stabilize revenue for producers over the growing season	Circulate information with flyers and social media around available CSAs and markets.	Short	Wolf Pine CSA Caswell Farms Farm Drop CEDC

Farmer's Market (Attachment C13) Consider relation to goals and action plans in Economic Development and Events modules.	To inspire the public to engage in locally grown food systems. To provide local farms with a profitable market opportunity	1.	Expand participation to make sustainable.	Ongoing	Gray Village Farmer's Market Town Manager
	To improve awareness and understanding of local food systems as a means of community resilience.	2.	Develop outreach materials to support community participation.	Short	
	To provide a cultural amenity that unites community around food and local agriculture.	3.	Explore opportunities to establish a food coop	Medium	
Gleaning & Foraging (Attachment C14) Consider relation to goals and action plans in Land Use Regulation, Economic Development, Adult Learner, Perennial Agriculture, and Soil Contamination modules.	awareness and acceptance of gleaning / foraging To connect gleaning to food distribution systems To provide public education on gleaning/foraging in Maine, including	1.	Provide classes on gathering mushrooms and other forage-able items in forest spaces.	Short	Adult Ed Libby Hill Association
		2.	Hold community events to glean blueberries from local spaces.	Short	Blueberry Festival Committee
		3.	Encourage the harvest of Maple Sugar from sugar maples located on Town property.	Medium	

	To inspire a broad- based, multi-general community engagement in locally grown food systems.			
Soil Contamination (Attachment C15) Consider relation to goals and action plans in Land Use Regulation, Adult Learner, Community Gardens, Perennial Agriculture, and Soil Systems & Fertility modules.	To raise awareness about possible contaminants in soil as a public health issue. To encourage home/community gardening and revitalize a community's value in local agriculture. To inspire stewardship of local lands & natural life through hands-on engagement.	1. Increase knowledge around the necessity of testing soil for contamination as a fundamental step to establishing a home garden due to the historical land use and building materials used in Gray	Short	Gray Community Development Manager Adult Ed UMaine Cooperative Extension Micropark Local Access TV Station
Soil Systems & Fertility (Attachment C16) Consider relation to goals and action plans in Land Use Regulation, Adult Learner, Community Gardens, Perennial Agriculture, and Soil Contamination modules.	To discourage the excessive use of inorganic chemical fertilizer nutrients which ultimately impact the health of water resources. To educate the public on the importance of soil health To promote understanding of ecological relationships as a way to create habitat and	1. Hold adult and teen workshops.	Short- Medium	Maine BioNutrient Dense Food Association GNG Compost Coalition High School Greenhouse Program Adult Ed Gardening Class Local Access TV station

food sources that are self-sustaining. To improve awareness and understanding of local food systems as a means of community resilience.	2.	Incorporate into youth education programs	Short- Medium	MSAD15 Greenhouse Program
To inspire the community to engage in locally grown food systems.				

Adaptive Planning

Adaptive planning is an approach that can be characterized as "learning by doing". Much of the recommendations found in this plan have already been tested in some form in the Southern Maine region, but several of these ideas are still in the "pilot" stage. As time goes by, more information will be gleaned from projects at the local, regional, and larger scales. In addition, community needs and goals will change. The plans should therefore be updated regularly to include new information, priorities, and goals as they emerge.

Keeping your plans fresh

These plans are written to create a planning framework from a starting point in Spring 2021. Time frames for recommendations range from short (within 2 years), medium (2-5 years), and long term (more than 5 years). We therefore recommend that communities update plans according to the following schedules:

- Every 2 years:
 - Review the action steps in the plan and identify which have been completed.
 - Remove any actions that no longer appear relevant and add new actions as appropriate.
 - Adjust action item priorities, moving items up from long and medium term to short term as appropriate.
 - Conduct a community survey to assess changing needs, priorities, and trends.
- 10 Year interval:
 - Complete an update of all plan sections, incorporating new information. Items completed in the action item table can be included in the background or existing program categories as appropriate.
 - Conduct a survey consistent with those taken at 2 year intervals. Combine the survey data to assess longer term trends and changing needs.

- Hold a community agriculture forum to present results of community survey, incorporate feedback, help set priorities, and present proposals for new installations, programing, and other community agriculture initiatives.
- It is recommended that this be completed in concert with municipal comprehensive plan updates.
- Consider incorporating the community agriculture plan into the municipal comprehensive plan.

Conclusion

This plan has described how strengthening community agriculture will advance a number of other important priorities for the Town of Gray and how it ties into state goals to boost consumption of local food from 10% in 2020 to 30% by 2030. The plan is intended to guide Gray over the next ten years, and beyond, to meet these needs.

The summary of existing initiatives showcases the work already being undertaken by the Town and local advocates. It details who is involved, setting the stage for how other stakeholders can be brought into the process.

Perhaps the most important component of this plan is the action item table which presents the recommendations for how existing initiatives can be tied together, built upon, and added to in order to significantly build community agriculture in Gray. The table references various implementation plans developed for the Southern Maine region and included as an appendix.

As a final note, it is important we acknowledge the contributions of municipal staff and community advocates in collecting the information used to produce this plan. The community will play a crucial role in updating this plan at regular intervals, assisting the community with identifying priorities and meeting community needs in the years ahead.

References

"Gray Comprehensive Plan". September, 2020 https://www.graymaine.org/sites/g/files/vyhlif631/f/uploads/gray comprehensive plan final 09-16-2020 0.pdf

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"Growing Local: A Community Guide to Planning for Agriculture and Food Systems". April, 2017 https://growingfoodconnections.org/tools-resources/community-guide/

"Maine Won't Wait, A Four-Year Plan for Climate Change". December, 2020. https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait December 2020.pdf

Attachments

Attachment A: Community Agriculture Defined

Attachment B: 2020 Survey Results

Attachment C: Community Agriculture Action Plan Attachments

C-1 Land Use Regulation

C-2 Economic Development

C-3 Adult Learner

C-4 Youth Education

C-5 Events

C-6 Community Gardens

C-7 Connecting Growers to Land

C-8 Perennial Agriculture

C-9 Edible Main Street

C-10 Community Resources

C-11 Community Composting

C-12 CSA

C-13 Farmer's Market

C-14 Gleaning and Foraging

C-15 Soil Contamination

C-16 Soil Systems and Fertility