CUMBERLAND COUNTY SOIL & WATER CONSERVATION DISTRICT

Portland Community Agriculture Plan

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National Association of Conservation Districts

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Contents

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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.
- **Foraging –** The act of responsibly harvesting plants growing in naturalized areas where they are not actively cultivated. Responsible harvesting does not deplete the resource and in some cases can help it to spread.
- **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.
- **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.
- **Remediation –** 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] USDA Economic Research Service. October 2019. *Rural Classifications - Overview.* Retrieved from 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 City of Portland 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.

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

As noted by many Portland 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 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 plan[2] 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 City of Portland'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 Climate Council. December 2020. *Maine Won't Wait, A Four-Year Plan for Climate Change*. Retrieved from https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf

What is Community Agriculture

"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.

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

Community agriculture can be contrasted with "individual" or traditional agriculture, as depicted in ***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 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.

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

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 City of Portland can foster these activities in the current era.

Community Agriculture Benefits

The City of Portland has been a leader in establishing policies and programs to increase its sustainability and address climate change at many levels. The City's latest Comprehensive Plan (Portland's Plan) recognizes the benefits of community agriculture and supports it in many ways. The plan highlights the importance of tying land use and economic development policies to the growth of local food systems. And the recent plan to address climate change, One Climate Future, acknowledges how agriculture and fisheries will be disrupted by climate change. The Plan is a collaboration with the neighboring municipality of South Portland, and together,

Portland and South Portland, have set goals to "increase our food system resilience through strengthening our local capacity to grow, harvest, produce, transport, and access food".

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

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

- **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. Additional physical activity benefits, for example from walking to a local community garden or browsing an Edible Main Street walking loop also exist. The City of Portland can also help reduce pathways for lead exposure, by raising awareness of potential lead contamination and value of soil tests for lead screening.

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

- **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. 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 City of Portland to support and expand its community agriculture programming. It is important to note that individual initiatives should not exist in "silos", but rather be linked with each other, and also to other community goals. For example, goals to make City neighborhoods more walkable by stimulating active transportation can be addressed by creating an Edible Main Street demonstration.

This CAP was shaped by many partners including Cultivating Community, City of Portland staff from multiple departments, and the Cumberland County Food Security Council with survey input from the community and facilitated by the Cumberland County Soil & Water Conservation District, and various interested community members. The plan draws on experiences of several other towns including Gray, 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.

It should be noted that the process to develop this CAP was hampered by the COVID-19 Pandemic. Unfortunately, this project began in February 2020 and community engagement aspects were quickly sidelined by restrictions on public gatherings. Most meetings for this project were held virtually, although beginning in May, 2021 some meetings were able to be held outside and in person.

While community engagement was hampered by COVID restrictions, it was supplemented in several ways. Two community surveys were used to gather input on the community agriculture needs and goals for the City. In addition, a total of 8 meetings were held with stakeholders to discuss priorities, conduct site visits, and develop this plan.

Community Background

Agriculture History

The City of Portland details the following agricultural history in the 2017 Comprehensive Plan:

"Agriculture had a significant presence in Portland up until the first half of the 20th century, and the islands were used extensively for grazing. The 1914 Richards Atlas indicated vast tracts of open land in North Deering, Riverton, and Stroudwater that presumably were used for farming. As late as 1921, there were 80 registered dairy farms in the city. However, with the off-peninsula housing boom after World War II, the few remaining farms gradually disappeared and the last farm closed in the 1980s. While there are no working farms in Portland, approximately 265 acres of land are listed under Maine's Farm and Open Space Law taxation program.

Even though there are no active farms in Portland, Maine is seeing a resurgence in farming and is one of the only states in the nation that has seen an increase in young farmers. According to the 2012 USDA farming census, farmers aged 25 to 34 in Maine increased by 40% between 2007 and 2012, compared to a 1.5% increase in the number of young farmers for the U.S. as a whole. Over the same time period, the amount of land in farming has increased by 8% and the value of agricultural products in Maine has increased by 24%. This trend benefits the Portland economy through an increase in local foods sold to Portland restaurants, processing plants, and at the farmers' market held twice a week."

Community Demographics

The following demographic highlights are detailed in the City of Portland's 2017 Comprehensive Plan:

- Portland is the largest city in Maine, with a 2010 population of 66,194 and a 2015 estimate by the U.S. Census Bureau of 66,681 (nearly double that of Lewiston, the state's second largest city).
- Between 2000 and 2010, Portland's population increased by 1,945 residents (a growth rate of 3%).
- Portland's current population is roughly 11,000 residents shy of the city's record high of 77,634 residents in 1950.
- As the region's major employment center, Portland's daytime population is estimated to exceed 96,000 people.
- Millennials (20 - 29) and Gen Xers (30 - 39) comprise the largest share of Portland's population, while Baby Boomers (50 - 69) are the fastest growing age group.
- Portland's population is diversifying. Since 2000, the number of foreign-born residents has nearly doubled (from 4,895 in 2000 to a current estimate of 8,767). An estimated 11% of Portland residents are now foreign born.
- Portland's population is increasingly well educated. When compared to Cumberland County and the State, a higher proportion of Portland's residents have obtained

advanced degrees (45% of Portland residents over the age of 25 have bachelor or graduate degrees)

Survey Results

A Community Agriculture survey (Attachment B. 2020 Survey Results) was conducted in September 2020 to gain input into priorities for this Community Agriculture Plan. Additional input was gathered from a survey in February 2021 to gain more specific information around Portland specific needs. Survey responses indicated high value in food forests, community composting, tool libraries, institutional purchasing of local foods, farmer's markets, and education for both adults and youth.

Community Goals

The City of Portland 2017 Comprehensive Plan, *Portland's Plan,* makes the following recommendations to support for agricultural resources:

- Explore opportunities to develop and expand local food systems, including community gardens and urban farms.
- Increase the total number of community garden plots to provide equitable access and to meet demand.
- Support programs that increase healthy food access for all, including students in the Portland Public Schools and other City-run institutions.
- Support a healthy, resilient, and sustainable food system by collaborating with local and regional stakeholders.
- Support and recognize Portland's role as a thriving food economy in City codes and policies.
- Increase the urban tree canopy by 15% above current canopy coverage to benefit air quality, local climate, CO2 absorption, and aesthetics.
- Model environmentally-sound landscape management practices, such as planting for pollinators, planting native species, and limiting the use of pesticides and fertilizers.

Existing Community Agriculture Context

Community Agriculture Stakeholders

City of Portland

- Parks & Rec Department: Determines park locations for installations. Maintains City parks, trees, and facilities.
- Sustainability Office: Serves as the main contact point for this CAP.
- Planning Department: Leads land use planning and policy initiatives for the City.
- Public Works: Supports maintenance of community garden spaces.

Cultivating Community: Manages 10 community gardens within the City of Portland and seeks to support food insecure people. Provide public garden space for educational programs.

Cumberland County Food Security Council (CCFSC): Coordinates programming for gleaning. Coordinates the Food Fuels Learning initiative to increase access to fresh locally grown food in schools.

Cumberland County Soil & Water Conservation District (CCSWCD): Provides educational programming and project implementation support.

Land in Common: Connects people to land for growing food.

Maine Foodscapes: Foodscapes is focused on cultivating multigenerational relationships in garden settings. Foodscapes also focuses on education and events that celebrate the "seed-to-table" movement.

Maine Gleaning Network: Coordinates initiatives to prevent food waste.

Maine Organic Farmers & Gardeners Association (MOFGA): Provides educational workshops and promotes healthy soil practices.

Opportunity Alliance: Supports food security initiatives.

Portland Farmer's Market: Group of farms that coordinate the Portland market twice a week.

Portland Downtown: Coordinates Portland businesses for community initiatives and economic development.

Presente Maine: Supports food security initiatives.

Pesticide Management Advisory Committee (PMAC): Coordinates recommendations for implementing pesticide ordinance.

Resilience Hub: Participates in permaculture garden planning and volunteer events.

UMaine Cooperative Extension: Provides educational workshops and information on gardening. Coordinates Master Gardener certification program

University of Southern Maine (USM): Education programs

- Osher Map Library

Individual Businesses:

- Nurseries:
    - Edgewood Nursery: Provides educational workshops on perennial agriculture.
- Osborne Organics: Consults on implementing organic maintenance for public spaces.
- We Compost it!: Provides compost pick-up at City drop-off points as well as opportunities for businesses to participate in composting.
- Garbage to Garden: Coordinates curbside composting program for the Greater Portland area.
- Portland Food Co-Op: Supports outreach on community initiatives.

Land Trusts: Provide access to areas for foraging and land for perennial edible plantings.

- Portland Trails
- Maine Farmland Trust

Neighborhood Organizations: Share information and participate in volunteer events.

Media: Participates in sharing information of events and educational opportunities.

- Amjambo Africa
- WCLZ
- West End News

Youth Organizations: Participate in educational and volunteer opportunities.

- Local Schools
- Scout Groups
- Boys & Girls Club
- Rec Camps

Policy

City Codes and Regulations

Agriculture is defined in the City Land Use Code[3] as "The practice of farming, including the cultivation of the soil for the growing of crops and rearing of animals to provide food and other products. Agriculture may include nurseries, greenhouses, and truck gardens, provided that there is no sale of products not produced on the premises." Agriculture is permitted as a principal use in Residential Zones R-1 and R-2 and the Island Residential Zone IR-1. As an accessory use, gardens are broadly permitted. The City Land Use Code is under revision in 2021 through an initiative called ReCode Portland.

In addition to directly regulating agricultural uses, the land use code also affects where and how food is accessed in the city. In conjunction with the City's Recode initiative, a "complete neighborhood" analysis[4] was completed in May 2021. A complete neighborhood according to the City of Portland Comprehensive Plan includes an area with access to food, education, places for civic engagement, open space, and other amenities within a walkable or bikeable distance. This analysis will be utilized in ReCode to understand how well the existing land use code is facilitating access to essential resources within a 15-minute walk from all homes.

The city's land use code includes some incentives for green roofs. In the India Street Form-Based Code Zone, projects may receive a height bonus of 12 feet for incorporating a roof plan where 50% of the coverage is considered "green". The green roof is defined as "roof of a building that is partially or completely covered with vegetation and designed to meet the Maine Stormwater Best Management Practices Manual standards and recommendations. A green roof installation

[3] City of Portland. March 2021. Article 3: Definitions. In *City of Portland Land Use Code.* Retrieved from https://www.portlandmaine.gov/DocumentCenter/View/1080/Chapter-14-Land-Use-ReCode---Revised-3152021?bidId=

[4] City of Portland. May 2021. *How Complete are our Neighborhoods? A Geographic Analysis of Complete Neighborhoods in Portland.* Retrieved from https://storymaps.arcgis.com/stories/e7a0cfd69f2d45d3871397bae97fa26a

must serve the purpose of reducing stormwater runoff through retention or slowing and consist of an assembly that at a minimum includes a root repellent system, a drainage system, a filtering layer, a growing medium and plants, and shall be installed on a waterproof membrane.

The City of Portland Technical Manual also includes community agriculture-related provisions. The Technical Manual states that all site landscaping "should result in attractive, low-maintenance outdoor spaces that incorporate site definition and screening and support biodiversity." It requires that the proposed plants be comprised of at least 50% native species.

Other chapters of the City's Code of Ordinances which relate to community agriculture include Chapter 5, which provides standards for the keeping of domesticated chickens, and Chapter 21, which regulates farmers' markets.

Economic Development

Portland is nationally recognized as a destination for fine dining and culinary tourism represents a significant part of the city's economy. Community agriculture amplifies this sector of the economy by stimulating interest in local, in-season food as demonstrated by the locally-sourced food already found on the menu in many of Portland's restaurants.

The City and Downtown District currently provide ornamental planters in the downtown area. Community Development Block Grants are available to support community building projects and have been used in establishing community gardens, and may be available to provide additional community agriculture investment.

Education

Adult Learning

Educational programming for adults is available for Portland residents through many different organizations including Cultivating Community, Maine Foodscapes, UMaine Cooperative Extension, Resilience Hub, and Edgewood Nursery.

The Honey Exchange offers beekeeping classes and has several demonstration hives on site at their Stevens Ave store.

Maine Foodscapes, an organization focused on bridging the gap between people and where their food comes from, aims to partner with both private and public associations to offer gardening, cooking, and wellness workshops for Portland residents. Foodscapes strives to support inter-cultural connections in garden and kitchen-based settings in order to increase community equity and well-being.

Youth Education

Educational programs are provided by Cultivating Community at two Portland Schools: Talbot Elementary and East End Community School. Participating students learn about how plants grow and help perform garden maintenance tasks. Support for these programs is provided by Food Corps.

Reiche Elementary, Longfellow Elementary, and Rowe Elementary have school gardens with programming coordinated internally.

Maine Foodscapes offers summer gardening programming for youth. They piloted a summer garden program at the Reiche School Garden (2018) and seeks to further develop a model to the fill the gap in summer programming at school gardens so that youth can engage during the height of the growing season.

EcoMaine offers composting programs for youth at Portland elementary schools as well as for youth groups including the Boys & Girls Club.

Portland Arts and Technology High School (PATHS) started a garden program in 2013. It includes growing a variety of vegetables, flowers, and fruit trees as well as programs for composting the schools food waste with traditional bins and vermiculture.

Events

Many Portland events include waste reduction programs which include diverting food waste to be composted.

The City organizes "Green Fest" every September. This festival celebrates sustainable practices and brings together over 40 businesses and organizations to share information and methods for living a "greener" lifestyle.

Maine Foodscapes, an organization focused on bridging the gap between people and where their food comes from, aims to partner with both private and public associations to offer gardening, cooking, and wellness workshops for Portland residents. Foodscapes strives to support inter-cultural connections in garden and kitchen-based settings in order to increase community equity and well-being.

Wayside, an organization focused around food security in Portland, coordinates 4 pop-up picnics at different community gardens in the city. Food is sourced, gleaned in many cases, from local farms, prepared, and served to community members at no cost. Several other community organizations often participate to bring books, youth activities, or educational materials to the community. Local musicians provide ambiance for a joyous gathering.

Maine Flower Show and other garden themed tradeshows are held annually at Thompson's Point. These events connect the community to various garden and landscape businesses to enhance their gardens. Educational workshops are often incorporated to demonstrate Yardscaping and low input methods for yard care.

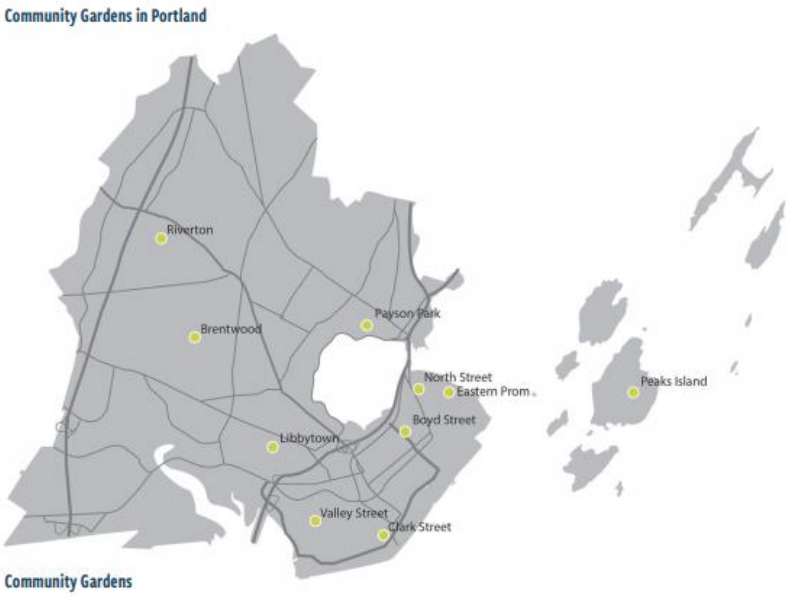
Plantings

Community Gardens

There are currently 11 community gardens on city-owned land, and several others on private land, built through the collaborative efforts of neighborhood associations, non-profit organizations, the City, and volunteers. The first City owned community garden was built in 1995

on Valley Street at the base of the Western Promenade. It has 42 plots and is adjacent to a dog park. The 8 plot Clark Street Community Garden and 52 plot North Street Community Gardens were built in 1998.

In 2000, the 33 plot Payson Park Community Garden was formed. The 28 plot Riverton Garden, started by neighbors in 2009, was acquired by the City of Portland in 2014. The Brentwood Farms Community Garden, consisting of 65 individual and 20 communal plots, was formed by residents in 2010 and acquired by the City in 2014. In 2008 Peaks Island residents formed a 20 plot community garden also taken under management by the city in 2014. The 30 plot Boyd Street Garden was formed in 2009 as a partnership between the residents of Kennedy Park, Cultivating Community, and the City of Portland. The 60 plot Casco Bay Garden was built in 2016 as a partnership between Resilience Hub, Cultivating Community and the City of Portland. A collectively run Common Share Garden was added beside it the following year.



Community Gardens

Name	Year Built	# of Plots	Neighborhood
Valley Street Community Garden	1995	42	St. John Valley
Clark Street Community Garden	1998	8	West End
North Street Community Garden	1998	52	East End
Payson Park Community Garden	2000	33	East Deering
Riverton Community Garden	2009	28	Riverton
Brentwood Farms Community Garden	2010	85	Deering
Boyd Street Urban Farm	2004	48	East Bayside
Eastern Promenade Community Garden 1	2015	60	East End
Peaks Island Community Garden	2009	20	Peaks Island
Libbytown Community Garden 2	2016	24	Libbytown
Total Number of Plots		400	

Figure 6: Community Garden Locations and year established. (Portland's Plan 2030).

The Casco Bay gardens were built using permaculture techniques and donated labor and materials. A $15000 Harvard Pilgrim grant (intended to increase access to fresh food for low and moderate income) was used to purchase a tool shed and fence. $5000 was set aside to provide scholarship for low-income residents.

Libbytown Community Garden was built in the fall of 2016. The 42 plot garden was constructed through a partnership between the Libbytown Neighborhood Association, the City of Portland, Cultivating Community, and the Resilience Hub utilizing a Community Development Block Grant.

Cultivating Community manages 10 of the community gardens with over 400 plots and keeps an active waitlist with over 700 people listed. These gardens are located on City property but use of the space is coordinated by Cultivating Community with maintenance provided by participating gardeners and the Department of Public Works. Gardeners are assigned to plots with a priority

for providing low-income families a place to grow food. The City's Comprehensive Plan details the following Community Garden programming information:

"The Boyd Street Urban Farm, located in East Bayside adjacent to Franklin Street, is unique among all of the community gardens in Portland because it is used to train youth in Cultivating Community's education and leadership programs. Construction of the Boyd Street Farm began in 2004, when spinach was planted to remediate the lead contamination of the soils on the property. Cultivating Community then established community garden plots and an urban orchard (including berries), and with the assistance of the City of Portland and other partners, built sheds, a pergola, a compost system, a rainwater collection system, and water access. In 2014, Cultivating Community established a beehive for honey production. Boyd Street Urban Farm now produces 2,000 pounds of vegetables, berries, and other fruit annually, which are donated to the elderly, low-income families, and youth growers."

The University of Southern Maine operates their own community garden for students and alumni.

The Bayside Neighborhood Organization operates their own community garden on Chestnut Street.

For more information on Community Gardens in Portland Maine, please see Attachment E *"The Community Gardens of Portland, Maine: Overview and Recommendations" by Matthew Day, Portland Community Member June 15, 2021.*

Perennial Agriculture

The City has one public orchard, Mount Joy, located on the East End. Brentwood Garden, Boyd Street Garden, and Libbytown Garden have adjacent food forests which are available for the public to harvest from.

The University of Southern Maine has a food forest for public harvesting on campus. Additional food forests and perennial edible plantings are located at Harborview Park and Riverton Trolley Park.

Programs

Community Resources

Commercial kitchen space is available for rent at Fork Food Lab. This space is often an incubator for small businesses. In addition to commercial kitchen equipment, they also can provide cold or dry storage. Scholarships are available for Black, Indigenous, and People of Color (BIPOC) members of the community seeking to begin a small business.

The Portland Public Library hosts a seed bank for community members to donate and trade seeds.

The Portland Tool library offers memberships to community members who may need access to specialized tools which they otherwise may not regularly need. In addition to shovels and rakes

they also offer a cider press, broad fork, and other tools which are not commonly needed but highly useful when you do.

Portland Public Schools partners with Food Fuels Learning, a program coordinated by the Cumberland County Food Security Network, to provide fresh healthy meals incorporating locally grown food for students in 16 schools.

The Resilience Hub manages a large volunteer network for completing garden projects through Meet-up. They coordinate several "permablitz" throughout the growing season to help residents accomplish challenging garden projects in a short timeframe with the support of their large volunteer network. These "permablitz" also serve as an educational opportunity for gardeners to learn new techniques or skills and gain design ideas from their community.

Maine Foodscapes cultivates good food movement ambassadors by fostering leadership opportunities. One way Foodscapes engages local leaders is by offering low-cost gardening resources to organizers interested in starting or supporting garden initiatives at organizations like schools, early head start programs, libraries and food pantries.

Maine Foodscapes also partners with Portland residents experiencing limited income to build free raised bed vegetable gardens at their homes. Foodscapes also partners with individuals experiencing limited resources to construct accessibility gardens at their homes or in their City of Portland community garden plots (Clark Street Garden, 2021).

Bulk purchasing is organized through the Allen Avenue Unitarian Universalist Church as part of their Food Co-op program. The co-op is open to the public, regardless of church membership status. The group prioritizes purchasing from local vendors.

Composting

Curbside composting is available for residents and food businesses through Garbage to Garden or We Compost It. Participation is done through a monthly fee and shares of compost are available.

A new pilot program, starting in Spring, 2021, is being set up to provide free drop-off locations for food-waste collection in locations accessible to neighborhood residents in 4 locations, with more planned.

Maine Foodscapes offers installation of at-home composting systems and consultations for Portland residents.

CSA

Many CSAs are available to residents in the Portland area with drop-off locations including offices and breweries.

Farmer's Market

The Portland Farmer's Market is held twice a week through the spring and summer on Wednesdays and Saturdays. Typically, the Saturday market is held in Deering Oaks Park with 31

vendors and the Wednesday market is held in Monument Square with 18 vendors. During the spring of 2021, the Market moved to Payson Park temporarily to avoid the active period for Brown Tail Moth caterpillars in Deering Oaks Park. Participating vendors must have products that were grown in Maine. These markets are highly popular and draw in many people from surrounding communities. They are also valuable opportunities for farms to sell their produce and the market keeps a waitlist of vendors. A winter farmers market is held on Saturdays at the former location of the Maine Girls Academy.

Cultivating Community began an online farmer's market in 2020 which allows people to place their orders for produce from participating farms. Their orders are then made available at the Cultivating Community office on Elm Street in Portland.

Gleaning & Foraging

Wayside and the locker project utilize gleaning on regional farms to provide fresh food for Portland food security programs.

The Maine Gleaning Network unites state-wide gleaning networks including the Cumberland County Gleaning initiative which is coordinated by the Cumberland County Food Security Council. In 2020[5], this initiative gleaned 18,000lbs of food from 30 farms to distribute to 11 food security partners, many of which are based in Portland.

Soil Contamination

The University of Southern Maine conducted a preliminary study in 2005 of Portland's soils[6] documenting high levels of contamination. In the Bayside neighborhood, 100% of samples had lead above 375 parts per million (ppm), as did 92% and 86% of samples from the Parkside and West End neighborhoods, respectively. For perspective, concentrations greater than 100 ppm are considered by some regional workgroups to be a reason for concern, and a lead concentration of more than 400 ppm in a waste material would categorize it as hazardous by the USEPA. The average soil lead concentration in all neighborhoods in the study was over 1,300 ppm (with a maximum of 25,100 ppm), demonstrating the need for further work in these areas.

Portland's industrial history makes soil contamination prevalent in many neighborhoods. In 2020, the Cumberland County Soil and Water Conservation District received funding from the Environmental Protection Agency to provide residents in the Bayside, East Bayside, Parkside, and West End neighborhoods with free soil tests for lead contamination. Over 120 soil samples were collect in 2020 and 2021. Additionally, plant tissue samples were taken from several sites where medium to heavy contamination was found and additional tissue samples will be analyzed in 2021.

[5] Cumberland County Food Security Council. 2020. *Gleaning 2020*. Retrieved from https://www.ccfoodsecurity.org/uploads/9/7/0/5/97051956/gleaning_2020__1_.png

[6] Burk, E. 2005. *Soil Lead Distribution in Portland, Maine)*. Retrieved from https://scisoc.confex.com/crops/2005am/techprogram/P6098.HTM

Outreach materials were developed and translated into five languages as the neighborhoods within the study's target area are reported to include 14-37%[7] of residents whose first language was something other than English.

Soil Systems & Fertility

The City has been partnering with the Cumberland County Soil & Water Conservation District since 2010 to reduce the amount of fertilizers and pesticides used within the Capisic Brook Watershed. This effort focuses on educating residents on using Yardscaping practices which build healthy soil which is more resistant to pests and produces healthier plants.

The City received a grant from Stonyfield Organics to support initiating organic playing field methods at Fox Field in 2020.

Recommended Community Agriculture Initiatives

The following proposed recommendations were developed by CCSWCD working with stakeholders from the City of Portland and are derived from community needs and goals. These recommendations are aspirational, and do not represent a firm commitment by the City for implementation.

The City's Sustainability Department has been identified as the primary point of contact for implementing community agriculture programming in the city. However, many other city staff, organizations, and community members will play important roles. 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 guide high-level decision making and planning. 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.

[7] City of Portland, Maine. 2017. "2017 Comprehensive Plan". Retrieved from http://www.portlandmaine.gov/DocumentCenter/View/15412/Portlands-Plan-Appendices-2-10-2017-

Policy

Policy Module	Community Goals	Actions Plan Summary	Timeline	Key Partners
City Codes and Regulations (Attachment C1: Land Use Regulations) *Consider relation to goals and action plans in Adult Learners, Events, Soil Contamination, Economic Development, Perennial Agriculture, and Foraging & Gleaning.*	To assist people with overcoming economic barriers to accessing land for food production To promote local food production to achieve economic self-sufficiency goals 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 catering to food production sell goods and services, and property values increase. To integrate community ag goals into other sustainability initiatives	1. Include food production in open space planning and development.	Short	Planning Department Portland Housing Authority Parks & Rec Department
		2. Better utilize rooftops for food production by providing incentives.	Medium	
		3. Create policy to consider vacant land for agriculture use.	Medium	
		4. Consider incentives for projects that incorporate agricultural features. Use clarifying language to include food crops or native plant species to maximize ecological benefits.	Medium	
		5. Update "Agriculture" definition in City Land Use Code to include modern agriculture activities, including season extension technology like hoop houses, beekeeping, intensive agroforestry, brewing or other value-added activity, and integrated vending and/or agritourism. Consider broadening zones in which agriculture is permitted as a principal use.	Short	
		6. Update Technical Manual to specify opportunities for utilizing edible plantings and community agriculture	Short	

		practices in site landscaping, and expand planting list to include edible plantings.		
		7. Review Land Use Code to determine if it contains any additional barriers to community agriculture practices, and eliminate the barriers wherever practicable	Short	
		8. Update Land Use Code to better support local growers with using farm stands as a distribution method.	Short	
		9. Building off the India Street Form-based Code model, consider height bonuses for green roofs in more zones. Add clarifying requirements for receiving height bonuses for green roof to include maintenance requirements and utilization of edible plants. Consider including a blue roof option to receive the height bonus.	Medium	
		10. Update Technical Manual standards for plantings within the right-of-way to encourage edible landscaping and fruit trees.	Short	
Economic Development (Attachment C2) *Consider relation to goals and*	To build workforce capacity through education	1. Coordinate with local businesses to provide support for edible planters in open spaces.	Short	Economic Development Department

action plans in Adult Learners, Events, Community Gardens, Edible Main Street, Perennial Agriculture, and Farmer's Markets.	To enhance branding of community identity. To recognize opportunity to invest in public spaces, seek funds from grants and volunteers to do improvements and maintenance. To capture synergies between community agriculture & economic development needs. To connect the public with commercial agriculture growth.	2. Provide outreach to grocery store owners on partnerships with local farms to provide fresh local produce in their stores. Prioritize building connections between New American business owners and New American farmers.	Short	Portland Downtown
		3. Utilize CDBG funds for increasing resources for community garden programs.	Short	

Education

Education Module	Community Goals	Actions Plan Summary	Timeline	Key Partners
Adult Learning (Attachment C3) *Consider relation to goals and action plans in Events, Youth Education modules, Soil Contamination, and Soil Health.*	Inspire the community to engage in locally grown food systems. Promote understanding of ecological relationships as a way to create habitat and food sources that are self-sustaining. Increase understanding of gardening basics	1. Increase direct learning opportunities for gardeners. Use community gardens and orchards for space to facilitate workshops.	Short	MOFGA UMaine Cooperative Extension Edgewood Resilience Hub Master Gardeners Cultivating Community Maine Foodscapes
		2. Leverage social capital and expertise within community gardens.	Short	
		3. Increase learning opportunities available at low-income housing facilities (ie. 409 Cumberland)	Medium	

	and plant needs and create more successful gardeners. Grow the labor force, grow the local food economy, and create vocational opportunities.	4. Promote mentorships and intergenerational learning opportunities.	Medium	Portland Housing Authority Avesta Portland Adult Education University of Maine System Southern Maine Community College Portland Public Library
		5. Provide urban agriculture leadership opportunities.	Medium	
		6. Incorporate a holistic approach to community agriculture education that increases knowledge and connections of natural systems, including those indirectly supportive of food production.	Medium	
	Build economic and community development. To improve awareness and understanding of local food systems as a means of community resilience.	7. Coordinate formal garden tours. Include both public and private garden spaces.	Short	
		8. Utilize the Technical Manual as a tool for educating new audiences on how community agriculture practices can be incorporated into the City landscaping.	Short	
	Increase accessibility to fresh locally grown produce and promote food security.	9. Facilitate workshops around urban gardening including methods for constructing raised beds, container gardens, garden design, and mitigating risk when gardening on contaminated soil.	Short	
		10. Increase education for business owners, including outreach to new immigrants, by providing resources to build	Medium	

		connections with local farmers.		
Youth Education (Attachment C4) *Consider relation to goals and action plans in Events, Youth Education modules, Soil Contamination, and Soil Health.*	Increase accessibility to fresh locally grown produce and promote food security. Promote understanding of ecological relationships as a way to create habitat and food sources that are self-sustaining.	1. Expand youth garden programming to all Portland Schools.	Medium	Cultivating Community CCFSC Food Fuels Learning Initiative Maine Foodscapes CCSWCD Boys and Girls Club
		2. Secure funding to increase youth programming.	Medium	
	Increase understanding of gardening basics and plant needs and create more successful gardeners. Grow the labor force, grow the local food economy, and create vocational opportunities. Increase youth understanding of where food comes from and the importance of local food systems. To inspire youth to engage in	3. Incorporate programing into school curriculum and operations to ensure long-term sustainability.	Medium	
		4. Provide mentorship opportunities	Medium	

	locally grown food systems. To increase the sustainability of our food system in the long term.			
Events (Attachment C5) *Consider relation to goals and action plans in Events, Youth Education modules, Soil Contamination, and Soil Health.*	To unite community around food and local agriculture. To improve awareness and understanding of local food systems as a means of community resilience. To inspire communities to engage in locally grown food systems.	1. Establish annual community garden open house events.	Short	Community garden members Amjambo Africa City of Portland Sustainability Department City of Portland Parks & Rec Portland Co-op WCLZ
	To connect communities to their ecosystem.	2. Hold "Food awareness days" (FADs).	Short	
	To increase accessibility to fresh locally grown produce and promote food security.	3. Organize more "Feeding 5000" type events.	Short	
	To find groups interested in incorporating agricultural	4. Organize urban agricultural fairs to share information on small-	Medium	

	products into their operations. To encourage sustainable economic growth based on local agriculture.	scale gardening techniques.		
	To generate community excitement around local food initiatives. To shape and share community culture and personal cultures.	5. Use music, art and performances involving planting, growing and harvesting (planting fest, harvest fest, etc) to drive interest in local food for a broader audience.	Medium	
		6. Seed to table event	Medium	
		7. Utilize the One Climate Future event calendar as a resource for community outreach. Centralizing events will help to reduce duplicity.	Short	
		8. Take initiatives to increase accessibility to events including the use of non-digital outreach and language translations.	Short	

Plantings

Planting Module	Community Goals	Actions Plan Summary	Timeline	Key Partners
Community Garden (Attachment C6) *Consider relation to goals and action plans in Land Use Regulation, Economic Development, Events, Youth Education, Adult Learner, Soil Contamination, and Soil Health modules.*	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-sustaining. To improve awareness and understanding of local food systems as a means of community resilience. To demonstrate low maintenance gardening techniques that can be applied on a large or small scale.	1. Expand garden space at Boyd St, Payson Park.	Medium	Cultivating Community Portland Parks & Rec Maine Foodscapes Portland Planning Department Neighborhood Associations
		2. Increase types of gardening options at all community gardens	Long	
		3. Increase ADA accessible garden plots in all City of Portland community gardens.	Medium	
		4. Increase garden spaces so that all residents are within a 5-minute walk of a garden. Prioritize expansion in low-income neighborhoods and for residents with lead contaminated soils.	Long	
		5. Utilize greenhouses or other methods to expand growing season for gardeners.	Medium	
	To build economic and community development.	6. Identify sustainable funding to increase community garden capacity.	Short	
		7. Consider whether community garden programs fit better under other City departments (ie. Department of Health	Medium	

		and Human Services) and whether this shift could provide more resources for expanding the program.		
	To inspire the community to engage in locally grown food systems. To increase community connections, including multigenerational relationships.	8. Provide education and consulting on establishing community gardens on private land. Develop resources directory for guidance.	Medium	
Connecting Growers to Land (Attachment C7) *Consider relation to goals and action plans in Gleaning & Foraging, Community Garden, and Adult Learners modules)*	To inspire the community to engage in locally grown food systems. 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-sustaining. To improve awareness and understanding of local food systems	1. Increase outreach and communication around existing programming.	Short	Presente in Maine Land in Common[8] Maine Foodscapes
		2. Establish Friends of Community Gardens organization to promote and manage gardens and activities.	Long	

[8] Land in Common. 2021. *Maine Land Share Project*. Retrieved from https://www.landincommon.org/landshare/

	as a means of community resilience. To increase community connections, including multigenerational relationships. To assist people with overcoming economic barriers to accessing land for food production.			
Perennial Agriculture (Attachment C8) *Consider relation to goals and action plans in Land Use Regulation, Economic Development, Events, Youth Education, Adult Learner, Soil Contamination, and Soil Health modules.*	To promote understanding of ecological relationships as a way to create habitat and food sources that are self-sustaining. To improve awareness and understanding of local food systems as a means of community resilience.	1. Improve outreach about existing resources	Short	Cultivating Community Portland Parks & Rec Portland Trails Neighborhood Organizations Portland Planning Maine Foodscapes
		2. Add clear signage at all food forest resources	Short	
	To inspire the community to engage in locally grown food systems.	3. Develop interactive map with garden resources. Integrate with City tree map and record information that may otherwise be lost with volunteer changeover. Include clarifying information around open or private harvest.	Medium	

	To increase accessibility to fresh locally grown produce and promote food security. To build economic and community development. To demonstrate low maintenance gardening techniques that can be applied on a large or small scale. To improve the quality of public spaces and encourage community interaction. To increase habitat resilience and species diversity with the addition of perennial crops. To utilize space which may not be appropriate for traditional food production or have lower capacity for maintenance.	4. Improve Riverton Trolley Park food forest	Short	
		5. Improve Boyd St food forest. Utilize adjacent lot for open harvest expansion. Include design concepts that keep the space open to address safety concerns.	Short	
		6. Incorporate edible plantings at Stroudwater Park	Medium	
		7. Consider growing options at Fox Field Park.	Medium	
		8. Better utilize rooftops for food and City seedling production.	Medium	
		9. Coordinate partners and activate community groups for project implementation and long-term program sustainability.	Short	
Edible Main Street (Attachment C9) *Consider relation to goals and action plans in Land Use Regulation, Economic*	To contribute visual cohesion & aesthetic appeal to the town center, perpetuating a sense of community and reinforcing the	1. Establish pilot project in the East End on Congress St. *(See proposed project **Attachment D**.)*	Short	Portland Trails Opportunity Alliance Maine Foodscapes

Development, Events, and Perennial Agriculture modules.	town center as a valued space. To create synergies with community members, volunteers, and municipal properties.			Neighborhood Organizations Portland Downtown District
	To inspire the community to engage in locally grown food systems. To increase accessibility to fresh locally grown produce and promote food security.	2. Secure funding for long-term program sustainability.	Medium	
		3. Utilize green space in Congress Square Park redesign for edible planters and engage local businesses to provide maintenance.	Short	
	To facilitate foot traffic in town and bolster the community's economy by highlighting local businesses.	4. Identify roadblocks for installation and rectify them for long-term project success and expansion.	Medium	
		5. Utilize existing ornamental planters for edible plants.	Medium	
	To establish social care of town plantings and distribute workload associated with public landscaping.	6. Coordinate with local businesses to maintain edible plantings.	Medium	
		7. Coordinate with local businesses to maintain City planters. Consider utilizing these spaces for edible plants.	Short	

Programs

Program Module	Community Goals	Actions Plan Summary	Timeline	Key Partners
Community Resources (Attachment C10) *Consider relation to goals and action plans in Economic Development, Adult Learners, Youth Education, and Events modules)*	To inspire the public 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 techniques. To increase accessibility to fresh locally grown produce and promote food security. To assist people with overcoming economic barriers to accessing land for food production To create economic efficiency by pooling resources for specialized equipment. To enable small scale agriculture to increase capacity through shared costs and risk mitigation in investments.	1. Increase outreach about available resources by creating a centralized resource hub with information about all resources. (Attachment E.)	Medium	Resilience Hub CCFSC City of Portland Sustainability Department UMaine USM Osher Map Library Allen Avenue Unitarian Universalist Church
		2. Increase outreach around tool library opportunities.	Short	
		3. Provide ongoing updates to digital resource.	Long	
		4. Increase local food purchasing for Portland schools	Medium	

Composting (Attachment C11) *Consider relation to goals and action plans in Community Gardens, Events, Edible Main Street, and Soil Systems & Fertility modules)*	To reduce food waste in landfills To inspire the public to engage in locally grown food systems. To provide the public with an accessible option for composting. To increase accessibility to fresh locally grown produce and promote food security. To increase availability of valuable organic materials for local agriculture needs To reduce material costs for community ag projects.	1. Observe performance of the pilot program established in 2021.	Short	City of Portland Sustainability Department We Compost It! Cultivating Community Garbage to Garden Community Gardens City of Portland Parks & Rec Food Forests Resilience Hub DEP Institutions-Schools School Gardens Maine Foodscapes
		3. Explore options for City wide curbside composting.	Medium	
		4. Explore options to provide compost from curbside program to City park and garden spaces.	Medium-Long	
		5. Consider including composting in all City municipal buildings.	Medium	
CSA (Attachment C12) *Consider relation to goals and action plans in Economic Development and Events modules)*	To strengthen local food production and distribution systems. To stabilize revenue for producers over the growing season.	1. Provide centralized information on CSAs available in the Portland area.	Short	Cumberland County Food Security Council MOFGA

	To promote regional sustainability goals.	2. Incorporate CSA pick up locations into City garden map.	Short	Maine Farmland Trust USM Osher Map Library
	To build resilient community relationships, farmers to consumers. To create a "gateway" effect to build public support and participation in other community agriculture programing.	3. Incentivize City of Portland, nonprofits, businesses, and other large employers to participate.	Medium	
Farmer's Market (Attachment C13) *Consider relation to goals and action plans in Land Use Regulations, Economic Development, Adult Learners, and Events modules)*	To increase accessibility to fresh locally grown produce and promote food security. To provide local farms with a profitable market opportunity To activate underutilized community spaces.	1. Expand market to accommodate farmers on wait list by adding additional market times or space.	Medium	Portland Farmer's Market
		2. Determine how traffic patterns at existing and potential market sites may impact accessibility to the market.	Short	
		3. Identify long-term winter market locations to provide continuing consistency.	Medium	
Gleaning & Foraging (Attachment C14) *Consider relation to goals and action plans*	To inspire the community to engage in locally grown food systems.	1. Identify fruit bearing trees with public access on City tree map.	Short	Maine Gleaning Network Cumberland County Food

in Land Use Regulation, Economic Development, Adult Learner, Perennial Agriculture, and Soil Contamination modules)	To increase public awareness and acceptance of gleaning / foraging			Security Council Portland Parks and Recreation Department
	To increase accessibility to fresh locally grown produce and promote food security.	2. Identify a process for land owners to request private fruit trees be gleaned.	Medium	
		3. Secure grants funding for developing an interactive map where "gleaners" and "owners" can self-serve.	Medium	
	To provide public education on gleaning/foraging in Maine, including guidelines on ethics, health, and safety.	4. Provide education & outreach to clarify and inform the community on areas in the City where gleaning & foraging are permitted. Provide signage in gleaning & foraging areas to clarify responsible harvesting practices.	Short	
		5. Create a stewardship program using a service-learning model to foster maintenance and sustainable harvesting of publicly accessible fruits, nuts, or other produce.	Medium	
Soil Contamination (Attachment C15) *Consider relation to goals and action plans in Land Use Regulation,*	To raise awareness about possible contaminants in soil as a public health issue, with particular focus on	1. Continuing education on safe practices for soil lead contamination and expand resources to include information	Short	CCSWCD

Adult Learner, Community Gardens, Perennial Agriculture, and Soil Systems & Fertility modules.	low-income & New American communities. To encourage home/community gardening and revitalize a community's value in local agriculture.	on how current air pollution may contribute to garden contamination.		
		2. Review policies regarding the sharing of soil contaminant information between landowners, tenants, and new property buyers.	Medium	
	To inspire stewardship of local lands & natural life through hands-on engagement.	3. Create a public resource identifying funding sources for landowners with confirmed contamination to remediate or mitigate their exposure.	Medium	
	To implement remediation and contamination avoidance strategies to assist the public in gardening safely. To expand local capacity for food production	4. Provide educational resources and workshops on properly constructing raised beds to mitigate exposure.	Short	
Soil Systems (Attachment C16) *Consider relation to goals and action plans in Land Use Regulation, Adult Learner, Community Gardens, Perennial Agriculture,*	To inspire the community to engage in locally grown food systems. To promote understanding of ecological relationships as a	1. Consider ordinances to regulate nutrient inputs.	Medium	Osborne Organics City of Portland Parks & Rec CCSWCD Cultivating Community
		2. Increase education and outreach around organic practices.	Short	
		3. Utilize community garden spaces as	Short	

and Soil Contamination modules.	way to create habitat and food sources that are self-sustaining. 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.	successful uses of organic practices.		Resilience Hub PMAC (Pesticide Management Advisory Committee) UMaine Coop Ext
		4. Increase collaboration with partners to provide education and outreach on effective organic yard care.	Medium	
		5. Demonstrate effective organic methods on City properties by creating organic treatment plans for all fields.	Medium	
		6. Increase parks funding and capacity for organic field maintenance	Long	
		7. Increase water absorption by maintaining healthier, more porous soil in garden spaces to decrease polluted stormwater runoff.	Long	
		8. Take actions to meet Clean Water Act MS4 goals	Medium	
		9. Increase low and no mow maintenance areas to improve soil health and attract more pollinator diversity.	Short	

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 to assess trends and changing needs recorded from surveys conducted during previous 2-year intervals.
    - 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 City of Portland 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 Portland over the next ten years, and beyond, to meet these needs.

The summary of existing initiatives showcases the work already being undertaken by the City 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 Portland. 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.

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Attachments

Attachment A: Community Agriculture Defined

Attachment B: 2020 Survey Results

Attachment C: Community Agriculture Module 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

Attachment D: Edible Main St. Demonstration

Attachment E The Community Gardens of Portland, Maine: Overview and Recommendations

Attachment F: Portland Community Health and Sustainability Resource Hub Website Proposal