



Massachusetts

LOCAL FOOD ACTION PLAN



Developed by:

**Metropolitan Area Planning Council
Franklin Regional Council of Governments
Pioneer Valley Planning Commission
Massachusetts Workforce Alliance**

For:

Massachusetts Food Policy Council

December 4, 2015



Planning Team

Winton Pitcoff, Project Manager
Metropolitan Area Planning Council
Heidi Stucker, Food System Planner
Metropolitan Area Planning Council
Eric Hove, Strategic Initiatives Assistant Director
Metropolitan Area Planning Council
Mary Praus, Land Use Planner
Franklin Regional Council on Governments
David Elvin, AICP, Senior Planner
Pioneer Valley Planning Commission
Alex Risley Schroeder, Program Director
Massachusetts Workforce Alliance

Sarah Cluggish, Senior Advisor
Project Bread
Catherine Sands, Director
Fertile Ground

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Merck Family Fund



Marc Draisen,
Executive Director



Linda Dunlavy,
Executive Director



Timothy Brennan,
Executive Director



Deborah Mutschler,
Executive Director



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Plan Summary

Food is much more than what we eat. In Massachusetts, our food system employs approximately 426,000 people (about one of every ten workers residing in the State) and accounts for 4.5 percent of all economic activity. This remarkable system raises food from farms and fisheries, delivers it to our tables, and recycles the waste. It involves land stewardship, resource conservation, hunger relief, and public health. Food is also about culture and celebration. It's part of our identity.



Farms occupy 523,517 acres in Massachusetts, or 10 percent of our total land area. Our State has some of the best farmland soils in the world.

In Massachusetts, our local food system is already strong. Among New England states, we have the greatest number of food consumers. Our soil is among the most fertile the world, and our fisheries are strong. During recent years, the growing interest of Massachusetts consumers in “buying local” reflects their desire to eat more nutritious food, support the local economy, and sustain the environment. Indeed, in 2012 the number of farms and food businesses in our State was 41,341, and we now rank first in the U.S. for the percentage of farms using “community supported agriculture,” or CSA. *(In this plan, “local food” is considered to be that which is produced and sold within the State.)*

And we have opportunities to do better. Farms and food businesses face many barriers to expansion and viability. Many food system jobs have low wages, long hours, and no benefits. Access to fresh and healthy food is difficult for many people, as urban “food deserts” have up to 40 percent fewer grocery stores per capita than the national average. Food insecurity, a measure of hunger, has doubled since 2000 and now affects one in nine residents. Dedicated social service agencies and organizations provide essential assistance, but underlying issues of poverty and poor nutrition remain.

In this context, the Massachusetts Food Policy Council in 2013 launched a statewide planning process to address the opportunities and challenges of our State’s local food system. The Council established four general goals for the plan:

- Increase production, sales, and consumption of Massachusetts-grown foods.
- Create jobs and economic opportunity in food and farming, and improve the wages and skills of food system workers.
- Protect the land and water needed to produce food, maximize environmental benefits from agriculture and fishing, and ensure food safety.
- Reduce hunger and food insecurity, increase the availability of healthy food to all residents, and reduce food waste.

The Council engaged a planning team that facilitated broad statewide participation to develop the plan throughout 2014 and 2015. More than 1,500 people, many of whom represented food system organizations, businesses, and agencies, participated directly, at public forums around the State, in topic-specific working groups, and in a range of other ways.

Hundreds of specific actions were recommended, and have been organized to create this plan. While this body of actions touches on nearly every aspect of the food system, three general themes have emerged:



More than 1,500 people provided input or attended information sessions during the crafting of this plan.

- More informational and educational resources are needed to improve the growth potential of farm businesses, consumers, and food system workers.
- The regulatory environment at the State and local levels is in need of reform if our farms, food producers, and retailers are to remain competitive and sustainable.
- Targeted support to improve the financial capacity and technical proficiency of farms and food businesses is needed to catalyze new growth in our food system.

In addition, the need for collaborative action is recognized as the key to success. This will be accomplished by the building of alliances among stakeholders in sectors of the system that are already strong, engaging new partners, identifying shared interests, and working toward them.

Below are the four broad goals established for this plan by the Massachusetts Food Policy Council. Each is followed by a short description of the key needs that planning participants and the facilitation team identified, followed by leading actions from the full plan to address them. For the complete list of actions, as well as detailed information about existing conditions of the Massachusetts food system, please refer to the full plan, available at www.mafoodplan.org.

Goal 1: Increase production, sales and consumption of Massachusetts-grown foods.

Massachusetts' strong agricultural, fishing, and processing sectors offers a platform upon which increased production, sales, and consumption of local food can be leveraged.

One opportunity is in direct farm to consumer sales. On average in the U.S., about 80 cents of every dollar spent on food goes to marketing, processing, wholesaling, distribution, and retailing, and other costs not directly related to production. Less than 11 cents actually goes to the farmer.¹ But in Massachusetts, there are now more than 2,200 farms that sell directly to consumers at farm stands, farmers markets, and

¹ United States Department of Agriculture. (2013) 2013 Food Dollar, retrieved November 2015 at <http://goo.gl/OK4QTc>.

community supported agriculture (CSA) farms. Increasing direct sales can benefit farmers, as it allows them to receive a greater share of consumers' dollars by reducing many non-production costs.

Encouraging a shift in consumer spending is another opportunity to bolster the local economy. Massachusetts residents spend about \$32 billion on food each year. According to Community Involved in Sustaining Agriculture (CISA), "If every household in Massachusetts spent \$20 more on local food per month (and \$20 less on non-local food), \$234,768,540 more local income would be generated per year and 3,876 local jobs would be created in the State."²



There are more than 11,000 jobs in fishing and related industries, yet this industry remains highly vulnerable to outside forces, including climate change and fluctuations in international markets.

Increasing the production and sales of local food in Massachusetts will require addressing challenges affecting farms, such as the low-margin nature of the business, New England's short growing season, very expensive land, and a regulatory system that is difficult to navigate. Public investment in State agency services for agriculture, especially UMass Extension, has not kept pace with these and other needs of the agricultural sector.

Our seafood industry faces similar challenges, and fishing communities in Massachusetts have been in decline in recent years. Fishing businesses are subject to fluctuations in international markets. Fisheries also bear the impact of dramatic ecological shifts from climate change and decades of unsustainable fish stock management practices. There is also a general lack of collaboration and unity within the industry. Efforts to make direct to consumer connections have lagged far behind those of land-based farmers, and funding for fisheries research has been cut dramatically.

With products of both farms and fisheries, regulations related to food processing intended to achieve consistency and promote safety often present disproportionately greater challenges to small-scale food producers and processors, as the costs and complexity of compliance relative to their operations can be onerous. Many of Massachusetts' food distribution systems are inefficient and costly, which marginalizes products from local small food businesses. And both wholesale and retail markets have specific requirements for product preparation and packaging that can be barriers for small food companies.

Key actions to increase production, sales, and consumption of Massachusetts-grown and -produced foods include:

Market Massachusetts-produced food more effectively. Develop a strong market development program that coordinates the efforts of statewide brands and marketing campaigns with those of the regional buy local organizations, and support this program with public investment.

² Community Involved in Sustaining Agriculture. (2015). *Local Food Calculator*, retrieved October 9, 2015 at <http://goo.gl/L5o8OK>.

Provide resources for farming. Support farmers with research, technical assistance, and other resources that help them remain viable and competitive.

Distribute food more efficiently. Build networks and support connections among stakeholders in all links of the food chain to develop innovative ways to move food from producers to consumers. Create efficiencies through aggregation, and provide technical assistance and education to practitioners.

Improve food processing infrastructure. Support the development of shared-use kitchens and incubators to nurture small businesses and startups, and expand the capacity for freezing and other preservation methods at these facilities. Support growth of small businesses through flexible financing, and target training opportunities to meet changing demand.

Support the seafood industry. Provide funding and expertise for local seafood product development, including value-added opportunities. Develop direct to consumer markets for seafood.

Develop farm to institution markets. Build direct connections between producers and large buyers, and support regulations that streamline public entities' procurement processes and mandate purchases from local sources.

Goal 2: Create jobs and economic opportunity in food and farming, and improve the wages and skills of food system workers.



Of the approximately 426,000 residents with jobs in our food system, the majority are in retail and restaurant work. Jobs throughout the food system are often low-wage and without healthcare or benefits.

Creating new food system jobs and opportunities will require a strategic blend of workforce training, business development, and regulatory improvements.

The food system workforce spans many types of jobs, including farmers, food processors, truck drivers, retail grocers, restaurant workers, hunger relief workers, nutritionists, and more. All are indispensable. And while the overall number of food system jobs has increased in recent years, many of these positions require training and advanced skills. There are 556 education and training resources in the Commonwealth that offer a variety of food system education, information and training in the areas of production, processing, distribution, food service, food inputs, and health nutrition access. But our workforce development system is not currently equipped to train people for all current and anticipated occupations and businesses in the food system. And, at the same time, farmers, fishermen, and other food producers express concern about having access to an adequate labor supply.

There is also opportunity for further development of food system businesses. In 2012, total food system sales and revenue accounted for \$19.3 billion, or about 4.5 percent, of State gross domestic

product. Within that number, agricultural sales (excluding tobacco and greenhouse sales) were over \$427 million, which generated over \$671 million in spin-off economic impact. Fisheries alone generate more than \$7.7 billion in sales each year, with another \$3.07 billion in value-added seafood processing. Total food processing revenue is nearly \$2.5 billion per year, fully ten percent of the Commonwealth's manufacturing. Food system revenues, however, are offset by higher than U.S. average costs for land and energy, which affect businesses, as well as housing costs that are as much as 26 percent above the national average, which impact workers at all levels.

Finally, regulations also directly affect workforce and business development. Federal labor regulations for on-farm workers, for example, are highly complex and difficult to comply with. For businesses, compliance with regulations and code enforcement that often vary by town for food sales and processing, as well as building and plumbing, are barriers to businesses that wish to expand regionally.

Key actions that are recommended to continue the expansion of employment and economic opportunity in the Massachusetts food system include:

Support food system businesses, workers, and consumers with a strong research, educational, and technical assistance network. Build UMass Extension's capacity to provide needed education and technical assistance targeted to the needs of the industry, and encourage other service providers to collaborate to avoid duplication and provide services where they are most needed.

Ensure that regulations support the growth of agriculture and other food system businesses, while protecting workers, the environment, and public health. Develop and implement regulations consistently and fairly, through a transparent and engaged process. Pair guidance and assistance with new regulations, to facilitate compliance and improved practices.

Identify regulations that hinder viability. Examine, assess, and revise regulations regarding slaughter, on-farm plumbing, labor, building codes, and other points that add costs to food businesses unnecessarily. Ensure consistency across jurisdictions, and prioritize providing assistance toward compliance rather than punitive action for violations.

Fund infrastructure development. Support investments in modern equipment that facilitates safe, efficient food production and processing. Develop shared-use and multi-purpose incubators to nurture small businesses.

Provide business supports. Expand the range of financial and business planning services for farms and food businesses. Prioritize and foster opportunities for full-time, well paying jobs.

Goal 3: Protect the land and water needed to produce food, maximize environmental benefits from agriculture and fishing, and ensure food safety.

Massachusetts farmers steward 523,517 acres of land, but a significant amount of it has been lost in recent years. From 2005 to 2013, an average 13 acres per day was converted to non-agricultural uses (usually residential development), resulting in a loss of 38,000 acres in less than a decade. Since it was launched in 1979, Massachusetts' Agricultural Preservation Restriction (APR) program has been extremely effective,

protecting approximately 71,000 acres of the 74,122 acres of permanently protected agricultural land statewide. Yet, even with this innovative tool, just a little over 14 percent of Massachusetts farmland is permanently protected.



Converting food waste to compost reduces food being discarded into the solid waste stream and provides amendments for improved soil fertility.

This continuing decline in our agricultural land base, especially cropland, threatens the farming sector's future viability. Competition for land, driven by both developers and farmers, is pushing purchase and lease prices up. The lack of affordable land in our State is routinely mentioned by established and aspiring farmers alike as one of the biggest challenges to starting new farms and expanding existing ones.

There are some resources and service providers to support farmers in meeting various technical needs, such as soil health, nutrient management, water quality and quantity, energy efficiency and renewable energy, and conservation. But there is a significant shortage of technical assistance to inform and

educate farmers and landowners about these services or to meet the demand for them. Importantly, the fishing industry lacks sufficient technical assistance resources for management practices to protect the sustainability of fish stocks and the marine environment.

Improved management of food waste is a particularly urgent need for all farm and food businesses since a statewide ban on sending commercial food waste to landfills went into effect in 2014. There are a growing number of opportunities to divert food waste to energy production through the use of anaerobic digestion, as well as to home and community composting. Yet these initiatives have not yet received enough support to appreciably reduce the food waste going into landfills. Food waste decomposition in landfills produces large quantities of methane, a greenhouse gas with 25 times the climate change accelerating impact than carbon dioxide.

Water needs also must be addressed. The Massachusetts food system, including crop irrigation, livestock production, and processing, currently uses 150 million gallons per day.

Complying with food safety regulations is essential for farms and food businesses, but in Massachusetts regulations and their enforcement frequently vary from community to community. This often results in inconsistent or conflicting interpretations of regulations, leading to less efficient and ultimately less sustainable operations, especially for businesses that wish to operate within more than one town. At the same time, there are not enough education programs and resources to adequately inform stakeholders, including consumers, about food safety information and practices.

Actions to better protect our environment and promote food safety include:

Keep farmland in farming. Protect land with a range of tools that sustain viable operations designed to keep farmers on their land. Reduce tax burdens, encourage municipal bylaws that help to keep farmers on

their land, and ensure that programs meant to help farmers are keeping up with changes in agriculture.

Permanently protect farmland. Support public efforts such as the Agricultural Preservation Restriction (APR) program, Transfers of Development Rights, and Chapter 61A. Provide farm linking services and succession planning resources.

Make more land available for farming. Make more land owned by the public and nonprofits available for farming. Support managed development that does not encroach on existing farmland, and examine wetland regulations for opportunities to farm more land while protecting natural resources. Offer resources that allows for more crop production in urban areas.

Improve soil health. Incentivize best practices for farmers around cover crops and other management techniques that maintain soil organic matter. Facilitate better access to conservation programs.

Provide resources for fisheries. Support and educate the fishing industry on sustainable management practices that protect stock and habitat.

Protect water resources. Provide incentives and technical assistance for increasing water conservation and decreasing water pollution in food process and on farms.

Increase energy efficiency and sustainable practices in food production. Streamline processes for participation in public programs that provide financing and technical assistance for energy efficiency upgrades, and invest more public resources in these programs. Support education and technical assistance around fertilizer, pesticide, and nutrient application.

Ensure food safety. Improve availability of food safety information for consumers, and outreach, technical assistance, and training for food system workers in all sectors. Ensure that regulations are science-based, effective, and appropriate for Massachusetts businesses size and complexity, and that technical assistance and education to help facilitate compliance is readily available.

Goal 4: Reduce hunger and food insecurity, increase the availability of healthy food to all residents, and reduce food waste.

Throughout this plan, strong emphasis is placed on the needs of people who do not have enough food, as well as the public and personal health consequences of hunger and poor nutrition. The plan highlights opportunities to address these problems with cross-cutting strategies that complement and strengthen the local food system, and that ensure that healthy and locally grown food is available and affordable to all.

The reasons people are food-insecure are well-known: lack of income, inability to reach stores with healthy foods, and a lack of understanding of the direct connection between diet and personal health. For seniors and children, the rates of food insecurity and poor health outcomes are even greater than they are for the general population. For children, the lack of early education about nutrition contributes to food insecurity, as they grow up without fundamental skills in food preparation, shopping, and budgeting.



With many of our urban areas lacking in places to buy fresh food, community gardens and programs that connect people to food are of increasing importance.

While Massachusetts is blessed with a strong and dedicated network of food pantries and public health agencies and organizations, the facts are that the number of residents who are food insecure has doubled in the last 15 years to 11.9 percent of our total population, and poor nutrition is contributing to epidemic rates of obesity and being overweight among residents. About 36 percent of Massachusetts' adults are overweight and 23 percent are obese. In the past ten years, the number of adults in Massachusetts with diabetes has increased 28 percent. And these health impacts are hitting people of color disproportionately harder. In 2011, African American adults were about 40 percent more likely to be obese, and Latino adults were 30 percent more likely to be obese than white adults.

Massachusetts emergency food distribution system includes more than 700 food pantries and meal programs around the State. They are supported by four major regional food banks, which are primary providers of food to these agencies. But a relatively small portion of emergency food is locally produced. To help provide more nutritional food to people in need, Massachusetts Department of

Agricultural Resources (MDAR) in 2010 began dedicating a portion of the emergency food purchase dollars it manages to fresh, healthy, local foods. In 2014, these local purchases totaled \$780,000 for more than 1.7 million pounds of Massachusetts food and produce. While this has significantly increased the amount of healthy food available to low-income residents, many food pantries face another barrier in the shortage of refrigeration and transportation to deliver to their clients before it spoils.

Nutrition assistance programs have become critical sources of help to individuals and families on low incomes. The most heavily relied-upon is the federal Supplemental Nutrition Assistance Program (SNAP), with 863,412 Massachusetts resident participants in FY2014. SNAP distributed \$1.27 billion in benefits, or about \$123 per recipient per month – revenue that flows directly into retail food outlets. Yet recent challenges that prevented many households from accessing the program when they needed it highlighted the tenuous nature of food security for large numbers of residents, as well as the significant revenue that nutrition assistance delivers to our food system.

The key recommended actions to improve access to healthy food, reduce food insecurity, and improve public health include:

Increase household buying power. Expand the Massachusetts Earned Income Tax Credit and leverage other public support programs to better meet the needs of the people they serve. Support a living wage. Expand workforce education opportunities, so that all workers have the chance to advance in their careers. Support the Massachusetts Department of Transitional Assistance (DTA) Healthy Incentives Program to provide SNAP doubling at farmers markets and CSAs statewide.

Expand nutrition education. Educate consumers about how to add healthy food to their diets – from shopping and budgeting, to storage and preparation. Enlist healthcare providers, institutions, and insurers to help foster access to healthy foods through education and incentives. Bring back home economics in schools to teach food shopping, budgeting, and nutrition skills.

Expand physical access to fresh, healthy, and local food. Increase the availability of locally produced fresh, healthy foods through food pantries and meals programs, through increased purchases by emergency programs and more direct connections between farmers, producers, and hunger relief agencies, and by funding the Massachusetts Food Trust to support retail businesses in underserved communities. Expand the role of major institutions, such as hospitals and health care providers, in bringing healthy food to their clients and communities.

Expand access to healthy food for children. Support farm to school programs, coupled with increased education for children on nutrition awareness.

Improve access to healthy food with better transportation and food infrastructure. Work with transportation planners to improve public transportation service to grocery stores. Develop new access options for people in rural areas. Support mobile farmers markets and grocery stores to serve areas without sources of healthy food.

Support urban agriculture. Develop resources and supportive regulations to grow urban agriculture as a tool for education, community building, job training, and food production.

Introduction

Connections in our food system are essential. For fruits and vegetables, it is the connection between seeds and Massachusetts' fertile soils. Our fish and shellfish rely on clean seawater and a healthy marine environment. Meat and dairy products depend upon livestock's access to land. And all of these foods owe their growth to the careful, expert stewardship of our State's farmers, fishermen, and other food system workers who, in turn, owe their expertise in part to access to resources and education, and to a system that understands their work and supports it. So, too, do successful plans and initiatives require connections between people and ideas, between history and current realities, and between policy and practice.

Such connections form the core of this food system plan. The Massachusetts Food Policy Council (MFPC) and food system stakeholders committed to developing a "vision and plan to increase agricultural production, processing, and distribution that will serve as economic stimulus and address multiple related public health and food security issues." The initiators of the plan envisioned "a strong, abundant, and resilient food system that is rooted in communities; provides quality jobs; contributes to a vibrant economy; utilizes, enriches, and sustainably manages our State's natural resources; and supplies healthy, affordable, and accessible food for all residents of the Commonwealth."



The vision supporting this Plan is for increased agricultural production, processing, and distribution, leading to a more robust economy, and better health and equity.

Developing a food system plan is not a new idea for Massachusetts. In 1974 the Governor's Commission on Food, prompted by national concerns about sudden shortages in key grain crops and subsequent increases in retail food prices, issued *In Search of a Food Policy*,¹ to address the need for "an adequate supply of food both now and in the future" by examining the food system "as an interrelated, interdependent system [that]...must be responsive to the changing needs of all consumers."

Coming out of that process was the Commonwealth's first-in-the-nation Agricultural Preservation Restriction program, which to this date has protected more than 71,000 acres of farmland, as well as the *Mass Grown and Fresher!* brand, the first statewide marketing campaign for locally-grown foods.

In 1988 a second plan, *The Massachusetts Farm-and-Food System: A Five-Year Policy Framework*,² emphasized agriculture's "positive impact on food quality and availability, open-space preservation, jobs,

¹ Governor's Commission on Food. (1974). *Final Report of the Governor's Commission on Food in Search of a Food Policy*. The Commonwealth of Massachusetts, Massachusetts Department of Agricultural Resources. Accessed April 2015 from <http://goo.gl/9lJJ71>

² 1988 Massachusetts Task Force on Farm-and-Food Policy. (1989). *The Massachusetts Farm-and-Food System: A Five-Year Policy Framework, 1989-1993*. Commonwealth of Massachusetts, Massachusetts Department of Agricultural Resources

and the quality of life we enjoy.” From this plan came efforts to revitalize the Commonwealth’s food processing sector, which today makes up ten percent of Massachusetts’ manufacturing revenue.

As support for local food production and access grew in the late 2000’s, legislation was passed establishing the Massachusetts Food Policy Council. This 17-member body of public sector officials from the State’s executive and legislative branches, along with private and nonprofit stakeholders in the food system, was charged with developing recommendations to advance food system goals for the Commonwealth, and ultimately initiated this planning process with public and private support.

Thanks in part to these previous efforts, the State started this planning process from a position of strength. Massachusetts is home to the largest consumer demand for food in New England, some of the best farmland in the nation, abundant fisheries, and a population with a keen interest in and awareness of the food they eat and how their choices affect their own lives as well as the world around them. These factors have enabled us to create a thriving agricultural economy, with an increasing number of farms in recent years. Local fishing and shellfishing industries are growing as well, helping to reinvigorate Massachusetts’ traditional fishing communities. We have an innovative public health sector, and an established track record of being at the forefront of efforts to protect farmland and natural resources. We are also strengthened by a thoughtful network of organizations committed not only to connecting underserved families with resources to address their immediate food needs, but also to addressing the underlying issues of poverty and hunger. All of these elements form a strong foundation for an integrated, sustainable, resilient, and equitable food system in which an increasing portion of our food is cultivated, caught, processed, and distributed within Massachusetts.



Along with its many food system related assets, our State faces challenges in increasing food production, including the exceptionally high cost of farmland.

Achieving this goal of increased food production will not happen without further work, however. Our food system needs to be further strengthened in the face of serious new challenges. A retiring generation of farmers combined with high land prices threatens to cause a loss of farms and farmland at a time when younger generations are struggling to find land on which to farm. Complex and often opaque regulations without technical assistance to assist with compliance pose difficulties for small business owners in every sector of the food system. Hunger rates are rising, particularly among children, seniors, and other vulnerable populations.³ Epidemic

³ Foster West, E., Harper, A., Kelly, S., Martinez, E., McCarthy, A., Rogowsky, N. (2014). “Massachusetts Food Insecurity: Landscape and Innovation.” Tufts University on behalf of the Massachusetts Food Policy Council. Unpublished.

levels of obesity, diabetes, and other diseases stem from poor nutrition, lack of access to healthy foods, and the root causes of poverty, which in turn increase the shared cost of our public health system. Threats to our natural resources from climate change, pollution, and development are widespread.

This planning process sought to leverage myriad assets and opportunities to address these challenges by connecting people from all parts of the food system to identify barriers to growth, highlight examples of success and innovation, and propose actions for the public and private sector toward the realization of a sustainable food system. The emphasis was on finding ways to strengthen the intersections of different parts of the Massachusetts food system, in an effort to catalyze systemic change.

There are no clear boundaries defining where a food system begins and ends. It influences and is influenced by every sector of the global economy, and by forces as variable as climate and as enduring as topography. Geographic boundaries of food systems are porous as well: the Massachusetts food system is far from autonomous; it is closely tied to regional and global food systems.

For the purpose of this plan, however, we drew geographic and functional boundaries. This is not to suggest that the Massachusetts food system can or should operate in isolation, or that any food system can exist independently from external factors. In fact, even under optimal conditions Massachusetts simply would not have the capacity to have a fully self-reliant food system due to finite land resources, a short growing season, and increasing population. Rather, these boundaries were defined to focus our work on better understanding how we can capitalize on the strengths and address the challenges particular to the Commonwealth's local food system, so that it can better interact with broader systems and influences.

The MFPC charged the planning team⁴ with developing “a general framework for goals and objectives that will improve Massachusetts’ agricultural economy, enhance the resiliency of the Commonwealth’s food system, and improve the nutritional health of the State’s population,” with “a heavy, but not exclusive emphasis, on food production in the Commonwealth and the economic viability of the agricultural sector.”

To that end, this project seeks to advance four goals:

- Increase production, sales, and consumption of Massachusetts-grown foods;
- Create jobs and economic opportunity in food and farming, and improve the wages and skills of food system workers;
- Protect the land and water needed to produce food, maximize environmental benefits from agriculture and fishing, and ensure food safety; and
- Reduce hunger and food insecurity, increase the availability of healthy food to all residents, and reduce food waste.

⁴ The planning team for the food system planning process was comprised of the Metropolitan Area Planning Council as the lead, and the Franklin Regional Council of Governments, the Pioneer Valley Planning Commission, and the Massachusetts Workforce Alliance as partners.



Project advisors and working group leads lent their expertise to help craft an extensive, ambitious action plan including a plan for implementation.

The planning process involved an unprecedented statewide public outreach effort, engaging more than 1,500 participants. Most significant were the reports of eight working groups, led by project advisors and involving nearly 300 people, which provided tremendously informed, rich, and relevant input. This work was combined with comments received in regional public forums, interviews with experts and key stakeholders, academic research conducted specifically for the project, and a detailed review of literature and quantitative data to produce the plan. Public input details are contained in the Appendices.

There is no one right way to look at the food system, no single point where it begins or ends, and there are many ways to sort all of its complex elements. To organize its goals and recommendations, the plan focuses on eight broad aspects of the food system and the key points of leverage within each of them that can move the Commonwealth's food system toward these goals.

- **Land**, examining the accessibility of resources available for crop production, grazing, and other agricultural uses.
- **Inputs**, considering energy, water, waste, and other necessary elements of the process of growing and processing food.
- **Farming**, specifically land-based food production, including the particular issues and concerns around community-based and commercial agriculture in cities.
- **Fishing**, with an eye toward Massachusetts' rich seafood resources and how to best connect those resources with local consumers.
- **Processing**, with a particular focus on how to turn Massachusetts-grown, -raised, and -caught foods into value-added products.
- **Distribution** of fresh and processed foods through direct to consumer, wholesale, retail, and institutional markets.
- **Marketing** those foods through developing brand identities and highlighting desirable characteristics of local products.
- **Food access, security, and health**, considering the availability and accessibility of healthy food, particularly for residents and communities where options are limited.

Within each of these topics, there are a range of recommendations, from broad, long-term goals, to specific, discrete steps addressing immediate concerns, to suggestions for further investigation on particular topics. In many cases themes emerged in multiple areas, highlighting the need for different

sectors of the food system to support each other and collaborate in order to truly affect coordinated, efficient systemic change. Six of these cross-cutting themes in particular affect multiple stakeholders and sectors of the food system.

Education, Training, and Research

The need for more education throughout all sectors of the food system figures prominently in the plan. Strengthened educational services and training, coupled with applied research and targeted technical assistance, should be key tools to advance the state of practice in all sectors of the Commonwealth’s food system. Farmers, fishermen, and processors need access to training on the latest management and production technologies, support in understanding and complying with regulations, and research and training that helps them to produce food economically, in an environmentally supportive manner, and safely. UMass Extension, nonprofit organizations, government agencies, and other entities all have roles to play in meeting these needs.

Greater education was also identified as essential for consumers and the workforce. From increasing ways for consumers to make informed decisions about the food they purchase; to bringing agricultural education, school gardens, and home economics skills back to school curricula; to understanding how public policy and regulations effect farming and the larger food system; to educating consumers about the variety of fish species caught in Massachusetts waters; to targeting job training programs focused both on entry-level and incumbent skills-building toward sectors where a ready and available workforce is most needed, the plan emphasizes the need for knowledge sharing and communication throughout the food system.



Education and training in all food system sectors and at all levels is called for in this Plan, including reinstating home economics, bolstering UMass Extension, and improving job training.

Regulation

Regulations are a necessary part of the food system. They create clear expectations for producers, processors, and retailers while protecting workers, the public, and the environment. Every step of producing food – from how the land is taxed and soil nutrients are maintained, to how workers harvesting the crop are paid and how products are labeled – is closely regulated. So, too, are the processing and distribution systems. Compliance protects consumers, the environment, and ultimately the viability of the food industry. However, each regulation can also add costs for the producer, and compliance requires technical knowledge, education, and assistance.

There are concerns that the costs of some regulations outweigh their benefits, the ability of producers to comply, or even the ability of regulators to enforce them, and that some regulations

lack a basis in facts and science-based research. In addition, the inconsistent regulatory structure and insufficient funding at the State and local levels create barriers to regulators' ability to predict and respond to changes in production, distribution, and retail practices, resulting in obsolete regulations that do not adequately address emerging issues in the food system.

To address these issues, a number of recommendations cite the need for substantial reform in how regulations are developed and enforced, promotion of more uniformity across municipal boundaries, engagement with a broad group of stakeholders earlier in the regulatory process, and an emphasis on enabling compliance, rather than having punitive action against violations as the only remedy. At the local level, the recommendations cite the need to support the capacity of regulators to appropriately address existing and emerging issues related to food. Regulations and their enforcement should, above all, foster the production of better and more food while managing risk responsibly, not impose new management practices that producers and processors are unable to implement if they are to remain viable.

Economic Development

The theme of economic viability runs through all of the plan's recommendations. The food system is made up of businesses that create jobs, pay for services and supplies, and contribute to the Commonwealth's economy and tax base. A vibrant food system depends upon the ability of these businesses to thrive in a very competitive marketplace. Strengthening the commitment of all stakeholders – including consumers, producers, distributors, regulators, and policy makers – to fostering efficiencies in the State's food system, will, in turn, strengthen the Commonwealth's economy.

A key part of that success lies in marketing and education. That means developing new markets and creating a brand and identity for Massachusetts foods which appeal to local consumers while also building wholesale, domestic retail, and export markets. Consumers, too, must be engaged and play an active role in strengthening the Commonwealth's food system. For this to happen, there must be easy ways for people to get the information they need to make informed food choices. The plan calls for a system that clearly informs consumers about the implications of their food purchases, and reinforces the connections between those purchases and the growth of the State's economy, viability of our farms, fisheries, and other food businesses, and preservation of the open working landscapes that so many Massachusetts residents value.

Equity

Safe and secure communities begin with healthy residents. For a vibrant food system that works for everyone in Massachusetts, it is critical to increase consumption of healthy and locally produced foods by lowering structural barriers to food access. How and where food is grown, processed, marketed, sold, and regulated has a profound effect on who has access to it, and there are opportunities in every part of the food chain to broaden that access. The plan emphasizes the need to leverage income supports and invest resources to create healthy, food-secure communities, where people and neighborhoods disproportionately impacted by a lack of access have the ability

to acquire foods from an array of healthy food access points, while still paying a fair price that helps to sustain local food producers.

At the same time, information, land, and support for residents to grow, preserve, and prepare their own food in community gardens or on their own land is a valuable tool for promoting health, nutrition, and a deeper understanding of the food system.

Equity considerations extend beyond those affecting individuals, and encompass the need for financial, technical, and regulatory supports for a broad range of farms and other food businesses. Supporting small and startup businesses is critical, but so is ensuring that mature enterprises can survive. While innovation should be fostered, it should not come at the expense of supports for conventional food production upon which the food system is reliant.



Increased consumption of healthy and locally produced food, especially for those whose neighborhoods lack healthy, local food choices, is a strong theme of this project.

Environment

The plan places high priority on ensuring that food producers are supported in their efforts to comply with environmental regulations, as well as to preserve and protect natural resources. It also seeks to identify areas of conflict and recommend solutions. Every step in the food chain requires the use of some resources. The plan looks at where and how those resources are used, and considers how their use can be optimized to help improve the viability of the Massachusetts businesses that grow, process, and distribute food.

As stewards of land and sea, food producers of all types need support in employing sustainable management practices and adopting energy efficiency and renewable energy generation techniques while remaining economically sustainable. Fuller integration of food processing and distribution methods into the broader food system can lead to efficiencies that will cut energy costs and reduce environmental impact. Innovation at all levels of the food chain – from producers to consumers – can help reduce the waste generated from excess food and packaging.

Networking and communication

Implementing any change in the food system requires informed, connected, and motivated participants. There is a strong need for ongoing networking within and among the sectors of the food system to share resources and ideas, and to collaborate on advocacy agendas that are mutually supportive. This will require public and private support for ongoing, facilitated networks, advocacy, and education.

We all eat, and therefore we are all important participants in the food system. The choices we make about the food we buy and where we buy it drive production, influence markets, support economies close to

home and farther away, and affect our health and our environment. This plan seeks to shape the local food system so that Massachusetts residents, through their eating choices, can contribute to a more sustainable, equitable, and resilient food system, and a strong and equitable local economy.

The goals and action items in this plan focus on how to support the people, government agencies, organizations, businesses, institutions, and activities that make up Massachusetts' food system, with an eye toward making that system more resilient, more responsive to the needs of all residents of the Commonwealth, and better able to engage with the broader systems that shape what we eat every day. They represent ideas generated by a robust engagement process, involving more than 1,500 eaters, food producers, advocates, policymakers, regulators, and practitioners from all parts of the food system. Each recommendation is designed to support economically viable businesses producing, processing, distributing, and marketing more food in Massachusetts, and making it available to everyone.

This plan represents a snapshot of the local food system at this particular point in time, offering a framework of values and principles to guide future programs, funding, and conversations within the food system. The forces that shape our food system are constantly changing and our readiness to adapt and adjust our solutions and approaches toward these goals is critical. This plan is a foundation on which to begin, a map showing the lines between all of the elements of our local food system. Those connections are essential.