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A Food System Plan for Austin

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A Food System Plan for Austin

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Dedication

I would like to dedicate this report to my grandparents who have spent their lives as hardworking farmers in Romania where they continue to live simply, eat what they grow, and share their harvest with others. With them, I experienced going to farmers' markets, picking fruits and vegetables in their garden, and eating homemade meals of family recipes. They helped cultivate my love of making and sharing a meal with others. Thank you.

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Abstract

A Food System Plan for Austin

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Austin, TX is a city with goals for a strong community food system, as expressed in the *Imagine Austin* comprehensive plan. The City proposes creating a strong local sustainable food system and increasing access to healthy food for all residents. However, these goals lack regulatory measures. Furthermore, while a few city departments, local non-profits, and other entities track food system activities, there is no comprehensive city effort to track food system data and measure progress according to food system goals. Food system planning is necessary for creating a strong community food system, but Austin lacks a food system plan to ensure goals are met through policies, objectives, and benchmarks appropriate for its food environment. A food system plan is a strategic tool adopted by local governments at the city, county, or regional level. Food system plans are shaped by the unique food environments of each community while adhering to current strategies in food system planning, leading to the main question of my research: what are best practices for creating a food system plan for Austin?

This report will research food system planning and analyze five food system plans of four cities and one county in the United States and Canada – Seattle, WA, New York City, NY, Vancouver, Canada, Edmonton, Canada, and Multnomah County, OR – in order to create recommendations for a future Austin food system plan. While suggesting broad plan elements that should be included, the analysis will focus on three areas of interest for Austin; what role does geographical scale, such as neighborhoods or districts, have in food system plan implementation; which food system components are typically tracked and used as indicators; and, which entities are mentioned in reference to plan creation and implementation in the food system plan?

The goal of my research is to provide the City of Austin with recommendations for creating a food system plan that is appropriate for the Austin context and, through collaborative efforts with diverse stakeholders and partners, the inclusion of meaningful indicators, as well as a holistic perspective that includes social equity, will strengthen Austin's food system and advance *Imagine Austin* goals and the community's vision for a sustainable local food system.

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CHAPTER 1: Introduction

Food is an essential element of life that contributes to physical health, cultural vitality, and the environmental and economic well-being of communities. Food is also a recognized system, taking its place alongside other community systems such as land use, housing, transportation, the environment, and culture, contributing to the livability and social fabric of cities. Food system planning embraces food as a dynamic element of community and regional landscapes and addresses the multiple components of a food system. Austin is a city in need of a food system to formalize food system planning efforts and move towards a strong community food system.

With roots in the City Beautiful Movement and Ebenezer Howard's "Garden City" planning concepts (Raja, Born, and Russell, 2008), community and regional planning now includes food system planning, a recognized strategy developed in response to a broken conventional food system. Planning first developed through efforts to address public health issues in the early 20th century related to overcrowding in tenements and industrial land uses (Hodgson et al., 2011). This strategy has led to the creation of food system plans, adopted by local governments to address city, state, and regional goals and form policies, objectives, and benchmarks to meet these goals. Food system plans reveal the interconnectedness of food to other traditional urban systems such as food, air, water, land, transportation, and economic development. Such plans serve as a powerful tool for ensuring that community-based food system goals are integrated into comprehensive planning and met through regulatory measures, programs, and public and private resources.

The recognized need for food system planning stems from the unmistakable symptoms of a broken food system. Food insecurity prevails in both urban and rural areas and has led to issues of hunger as well as poor access to affordable, healthy food. A dramatic increase in diet-related diseases and obesity has garnered widespread attention and a call for change, especially in regards to the childhood obesity epidemic. Support for strong community food systems is also driven by concerns ranging from food safety and security to a weak economy, climate change, and increasing fuel prices.

Though food has been an integral part of daily life, it has not been addressed as a system that should fall under the same regulatory mechanisms, policies, and programs as other systems such as land, water, air, economic development, and transportation. Food has lingered on the back step of local governments, but it is a significant catalyst for improving the physical, cultural, environmental, and economic health of communities. Food systems are directly connected to traditional community and regional systems and require the same level of attention from planners and local governments. Food system planning can strengthen community food systems by addressing community-based goals for improving food security, increasing access to healthy food, and promoting food justice, all important elements of a thriving community food system.

Austin, TX is a rapidly growing, dynamic city with goals of supporting a strong local sustainable food system. The City recognizes the need to increase access to healthy food, support local agriculture, and support healthy communities, as outlined in *Imagine Austin*, the City's recently created Comprehensive Plan. Adopted in 2012, the plan includes goals related to the food system that were developed through extensive community stakeholder input and reflect broad interest in various aspects of food;

however, the City lacks a food system plan for the implementation of these goals through policies, objectives, and benchmarks, leaving food-related goals in *Imagine Austin* with no accountability, monitoring, or evaluation.

Currently, a few City departments such as the Department of Health & Human Services and the Office of Sustainability, alongside local food-related organizations and businesses track and monitor activities related to food, health, and agriculture that tie into goals expressed in *Imagine Austin*. However, the City has not regularly tracked and monitored food system activities related to *Imagine Austin* goals, and there are no guidelines or policies set forth to do so. Furthermore, there are no indicators and benchmarks for monitoring progress and measuring success. There is a need for the adoption of a citywide food system plan in order to develop goals, policies, objectives, and benchmarks that will not only directly relate to *Imagine Austin* but also advance a community vision for a local sustainable food system.

Through the analysis of five food system plans and interviews with city staff involved in food policy and planning, this report will provide recommendations for the City of Austin on creating a food system plan for Austin. These recommendations will suggest broad plan elements but primarily focus on three key areas of interest for the City of Austin. In my research, I ask:

- What role does scale (e.g. districts, neighborhoods, or regions), have in food system plan implementation?
- Which food system components are typically used as indicators to track progress?
- Are certain entities (i.e. nonprofit organizations or specific public agencies) typically involved in plan-making, actions, or implementation?

This report begins with a background and overview of general food system planning in Chapter 2 to explore the historical progression of food system planning and food system plans, which incorporates a discussion of current foundational topics to food system planning such as food systems, food security, access to healthy food, and food justice – all significant reasons for the burgeoning sustainable food movement the U.S. has seen in the last several decades. Next, Chapter 3 will provide an overview of Austin's food system with highlights of City of Austin food-related activities, *Imagine Austin* food system goals, existing food sector data, and leadership within Austin's food system. Chapter 4 will provide a review of literature for further insight into the research related to key elements of food system planning, such as food systems and health, food security, access to healthy food, food justice, and food system plans. This review will also show the need for more research on best practices for how to create food system plans. Chapter 5 will focus on the analysis of the five food system plans, which includes an overview of key elements, summaries of similar elements, insight into the three key areas of interest, and interviews with city staff involved in the plan creation or implementation. Finally, Chapter 6 will offer a final discussion on a food system plan for Austin. This chapter will propose recommendations for creating a food system plan for Austin based on the previous chapter's analysis, and future research questions.

Methods

In order to create recommendations for an Austin food system plan, I chose to analyze five food system plans of other local governments in the U.S. and Canada. These cities were chosen with the guidance of the City of Austin's Food Policy Manager in the

Office of Sustainability, who is leading food system planning efforts. Four city-wide food system plans and one county-wide food system plan were chosen because their cities or regions are comparable to Austin in either population size, culture, public health issues, food system activities, or socio-economic demographics and have been recognized as leaders in pioneering innovative strategies to strengthen local food systems. The analysis provides an overview of important plan structure, components, and approaches that will be valuable for Austin. First, the report will analyze the five plans and compare general background, structure, goals, and components, and entities involved in the plan-making process. It will then focus on the three key areas of interest for the City of Austin, which will form the bulk of my recommendations for a food system plan for Austin.

The three areas of focus will analyze: whether plans addressed scale (i.e. districts, neighborhoods, or regions) as a part of implementation; which food system components are used as indicators to track progress; and which entities were mentioned in reference to implementation. City of Austin food sector data gathered by the Food Policy Manager will be incorporated into the recommendations to provide relevant suggestions for indicators. Additionally, interviews with three city staff involved in creating the food system plans will reveal challenges and successes of food systems planning and the impact the food system plans have made thus far (see Appendix for list of questions). The final chapter will include a discussion of findings for creating a food system plan, summarize the final recommendations for a future Austin food system plan, and suggest potential future research questions for the City to explore, which will be important for next steps towards a food system plan.

CHAPTER 2: Food System Planning

While non-profit organizations and community activists have long advocated for a systems solution to healthy food access, local governments have only begun to address the local food system comprehensively as a stand-alone system in the past several decades. However, food system topics are not entirely new to the planning profession. In the early planning days, planners addressed public health issues related to sanitation and overcrowding that plagued the first several decades of the 20th century. Furthermore, ideas of linking urban areas to the agricultural hinterland are evident in concepts such as Ebenezer Howard's "Garden City" (Campbell, 2004, p. 345). Food system planning offers a comprehensive, interdisciplinary way to for communities and local governments to use a variety of strategies to improve the food system.

After decades of increased distance between producers and consumers due to the rise in industrial agriculture and a globalized food system, it was recognized that food systems are no longer a "stranger to the planning field" (Pothukuchi & Kaufman, 2000). Similar to air, water, land, and transportation systems, a food system is an integral component of community and regional planning. Clancy (2004) suggests how planning can contribute to community food systems by analyzing the results of a study by Pothukuchi & Kaufman (2000) on why planners had not previously engaged with the food system. Despite the planning profession's early ties to public health, the study showed that planners felt the food system is not within their scope of issues for various reasons: food is a rural, not urban, issue; food is driven by the private market; not enough funding exists to address food in plans; there are no problems with the food supply; and, it is difficult for planners to know with whom to work (Clancy, 2004). Pothukuchi and

Kaufman made recommendations for planners to "compile data on the food system, use their unique skills in analyzing connections between systems, and assess the effects of their decisions on components of the food system" (Clancy, 2004, p. 437).

Given the concerns planners may have, Clancy suggests food system advocates "engage planners on specific, well-targeted issues at the local or regional level" and collaborate with other organizations that have similar concerns to approach planners for assistance (2004, p. 435). These authors demonstrated that, much like the distance between producers and consumers that grew out of the industrial food system, planners had also lost the connection of the food system to planning as it relates to community health. In order to engage planners in the food system, it is first necessary to convey the relevance of the food system and provide specific guidance on best practices for applying a planner's skills to food system issues.

Recent Developments in Food System Planning

At the 2004 APA conference, Kaufman encouraged planners to become engaged in food system planning, and the APA responded by creating a food system planning track for the first time at the 2005 National Planning Conference, solidifying the growing interesting in food within planning. At the time, over 35 communities in the U.S. and Canada had addressed food system issues by establishing food policy councils or similar advisory groups, and food system planning was taught in several planning schools (APA, 2005). In a white paper published in 2005, the APA recognized that, given the comprehensive nature of planning that pays attention to the "spatial interconnections among important facets of community life," the food system fits alongside the other basic

necessities of life – air, water, and shelter – yet has not been included in the same way (APA, 2005, p. 2). The paper cited reasons for the integration of food systems into planning and suggested issues that a future food system planning policy guide should address. These efforts resulted in a APA policy guide on community and regional food planning in 2007 as well a PAS report on planning for healthy food access and community food systems (Raja, Born, & Russell, 2008). The field of community and regional planning incorporated food system planning to primarily examine the availability and accessibility of healthy food in order to propose policies for local governments. The focus of food system planning has since grown to address a wide variety of food system issues that impact a community's physical, economic, environmental, and cultural health.

Using a holistic approach, food system planning aims to "strengthen and make visible the relationships between producers, processors, distributors, and consumers of food" (Raja, Born, & Russell, 2008). In contrast to the conventional food system, a community food system is place-based and often promotes local and regional networks, promotes environmentally sustainable methods for producing, processing, and distributing food, advocates for social justice and food justice within the food system, and facilitates access to healthful, affordable, and culturally appropriate foods – also known as "food security" (Raja, Born, & Russell, 2008). The focus on community food systems stems from problems linked to broken conventional or global food system; alarming increases in obesity rates; the prevalence of "food deserts," a term used by the USDA to describe areas with limited access to healthy foods within reasonable proximity of one's neighborhood; economic and environmental consequences of industrial agriculture; and a

lack of consumer awareness and knowledge of food sources that leads to unhealthful food choices (Raja, Born, & Russell, 2008). The complexity of interrelated issues that has driven the need for food system planning speaks to the interdisciplinary nature of food and how it affects communities in all areas of health – physical, economic, environmental, and cultural.

Food System Plans

Strategies for improving community food systems range from integrating food system elements into comprehensive plans or creating stand-alone food system plans (Raja, Born, & Russell, 2008). A growing number of cities around the U.S. and Canada have adopted food system plans as part of city-led planning efforts to support healthy communities through addressing local food systems. In the last two decades, cities have recognized the importance of planning for healthy food systems in order to improve physical, environmental, and economic health and increasingly integrate food into all city departments. Nonetheless, creating food system plans is a relatively new approach. The first food system plan was adopted in the 1970's in Knoxville, TN, and there are a growing number of local and regional governments at the city, county, and regional level that have used such plans to create goals, policies, and actions that comprehensively address multiple aspects of the food system.

Food system plans are often holistic and suggest broad policy, program, and investment recommendations (Freedgood & Royce, 2012). Many use an approach that recognizes environmental, social, and economic components of the food system (Freedgood & Royce, 2012). Some are oriented towards city actions while others suggest

community actions. Food system plans primarily focus on access to healthy food as a key determinant of community health but offer a systems approach by addressing local agriculture, healthy food retail, school and community gardens, farmers' markets, and more. Plans can lead to state and local government policies and actions to strengthen community food systems. Planners, local food advocates, public administrators, and academics have suggested the value of a holistic systems approach to addressing aspects of the food system such as agriculture and community food security. Systems-thinking is based on an ecological understanding of how individual elements influence each other within a whole environment or organization (Freedgood & Royce, 2012). It is based on the belief that the only way to fully understand why a problem exists – or persists – is to understand the parts in relation to the whole (Capra, 1996 in Freedgood & Royce, 2012).

Through a systems approach, food system plans help coordinate city departments, communities, organizations, and community members to unite their efforts for improving the local food system and create a framework for continued collaboration and implementation of policies, programs, and initiatives. Plans can facilitate the creation of community-based goals and subsequent policies, creating accountability for city departments and individuals responsible for food system planning actions. Often, plans directly address land uses as they relate to the food system through urban and peri-urban agriculture, farmland preservation, and school and community gardens. Plans can also address a number of goals related to existing city plans for growth and development, as seen in the case of several of the plans analyzed in this report. These plans can also create indicators to measure progress and directional change for the City that are meaningful and relevant to furthering food system goals, rather than a mere exercise in data

collection and monitoring. This report will explore existing food system plans and analyze several elements in order to emphasize the value of food system planning to Austin, the challenges and tensions that may exist in creating a food system plan, and the overall community-based need for a food system plan for the City.

CHAPTER 3: Austin Food System

The City of Austin and Austin residents have expressed a strong interest in and support for a community food system. From an increase in local farmers' markets and food-related non-profits to a growing interest in urban agriculture and urban farms, many Austin residents have a stake in cultivating a sustainable food system. At the city level, food system topics such as healthy food, agriculture, community gardens, urban agriculture, local businesses, and wellness are mentioned extensively throughout the *Imagine Austin* Comprehensive Plan.

Imagine Austin

Imagine Austin outlines seven key building blocks, which were created by grouping together elements required in the Comprehensive Plan according to the Austin City Charter. These building blocks contain broad-ranging policies to guide implementation of the vision. Food is not listed as a separate building block, but it is mentioned within nearly every section. Food system-related policies (P) and building block actions (A) are woven into: Land Use and Transportation (LUT), Economy (E), Housing and Neighborhoods (HN), Conservation and Environment (CE), City Facilities and Services (CFS), and Society (S). The following *Imagine Austin* policies and actions show that food is recognized as having a role in comprehensive planning goals in Austin, but it is still treated as a smaller element of other traditional urban systems usually addressed through community and regional planning. 13 food-related recommended policies and 20 actions contain elements that could be a part of a separate food system

plan in order to create accountability and facilitate implementation of Austin's vision for a sustainable local food system (City of Austin, 2011, p. 118-189, 228-266).

Table 3.1 *Imagine Austin* Recommended Food Policies

LUT P5	Create healthy and family-friendly communities through redevelopment that includes a mix of land uses and housing types, affords realistic opportunities for transit, bicycle, and pedestrian travel, and provides both community gathering spaces, neighborhood gardens and family farms, parks, and safe outdoor play areas for children.
LUT P23	Integrate citywide and regional green infrastructure to include such elements as preserves and parks, trails, stream corridors, green streets, greenways, agricultural lands, and the trail system in to the urban environment and the transportation network.
LUT P29	Develop accessible community gathering places such as plazas, parks, farmers' markets, sidewalks, and streets in all parts of Austin, especially within activity centers and along activity corridors including downtown, future TODs, in denser, mixed use communities, and other redevelopment areas, that encourage interaction and provide places for people of all ages to visit and relax.
LUT P34	Integrate green infrastructure elements such as the urban forest, gardens, green buildings, stormwater treatment and infiltration facilities, and green streets into the urban design of the city through "green" development practices and regulations.
E P18	Develop a sustainable local food system by encouraging all sectors of the local food economy, including production, processing, distribution, consumption and waste recovery.
HN P10	Create complete neighborhoods across Austin that have a mix of housing types and land uses, affordable housing and transportation options, and access to healthy food, schools, retail, employment, community services, and parks and recreation options.

Table 3.1 Continued

CE P1	Permanently preserve areas of the greatest environmental and agricultural value.
CE P3	Expand the city's green infrastructure network to include such elements as preserves and parks, trails, stream corridors, green streets, greenways, and agricultural lands.
CE P5	Expand regional programs and planning for the purchase of conservation easements and open space for aquifer protection, stream and water quality protection, and wildlife habitat conservation, as well as sustainable agriculture.
CE P13	Incent, develop, and expand the market for local and sustainable food, which include such activities as farming, ranching, and food processing.
CFS P47	Extend existing trail and greenway projects to create an interconnected green infrastructure network that include such elements as preserves and parks, trails, stream corridors, green streets, greenways, agricultural lands that link all parts of Austin and connect Austin to nearby cities.
S P6	Promote the availability of and educate the community about healthy food choices, including "slow food" (local food traditions, small-scale food processing, and organic agriculture) and nutritional education programs.
S P7	Provide broad access to fresh foods; local farmers' markets, co-ops, grocery stores, community gardens, and healthy restaurants in neighborhoods.

Table 3.2 *Imagine Austin* Recommended Food Actions

LUT A11	Develop land use and transportation policies and regulations that promote the development of projects that promote more active and healthy lifestyles, such as community garden, tree-shaded sidewalks and trails, bicycle parking, showers within office buildings, and having daily needs within proximity to home and work.
LUT A36	Incentivize appropriately-scaled and located green infrastructure and public spaces, such as parks, plazas, greenways, trails, urban agriculture and/or open space in new development and redevelopment projects.

Table 3.2 Continued

HN A24	Establish a regulatory environment that creates communities across Austin that: support walking; bicycling, and transit; encourage live/work spaces; are in proximity to daily needs; include a variety of employment opportunities; provide a range of housing integrating market-rate and affordable housing for people of all ages, abilities, and means; utilize sustainable building practices; are stable with low crime and safe buildings; provide a range of facilities and services such as schools, parks, community gardens, and other public gathering spaces.
E A18	Partner with the Austin business community to develop policies, regulations, and programs to foster the development and success of local businesses by: creating an inventory of locally-owned businesses, including creative industries; developing a mentor program for locally-owned businesses; promoting the formation of worker-owned and community-owned businesses (co-ops) that sell local products; creating an Austin Craftsmen's Guild to showcase products created by Austin residents; providing tax incentives to locally owned businesses; creating a directory of locally-owned products; simplifying the process to have local businesses provide additional services (e.g. host bands for SXSW); supporting businesses at each stage of the business life cycle; enhancing and expanding small business development services to grow market share of small, local businesses; expanding economic opportunities and measureable results for Minority- and Women-Owned Business Enterprise (MBE/WBE) firms.
E A21	Establish strategies, incentives, or investments in healthful outdoor activities and venues that generate economic benefits to local businesses while promoting wellness.
CE A11	Develop regulations and incentives to protect prime farmland such as transferable development rights, farmland trusts, farmland mitigation, and conservation easements.
CE A12	Support local farmers by creating incentives and removing regulatory barriers, offering tailored small business support, and creating public information campaigns to promote local food.
CE A13	Expand existing and facilitate the establishment of new distribution avenues for local farm products.
CE A14	Identify and map food deserts and provide incentives for full service grocery stores and farmers markets to locate in these underserved areas.

Table 3.2 Continued

CE A15	Expand the City of Austin's acquisition of environmentally significant land, conservation easements, and/or development rights for the protection of sensitive areas, including: floodplains, riparian areas, wetlands, prairies, land that supports recharge of the Edwards Aquifer, wildlife habitat and corridors, bottomland forests and priority woodlands, critical environmental features, and agricultural land.
CFS A35	Create a green infrastructure plan for public land or in public rights-of-way to preserve Austin's ecosystem, improve the water cycle, reduce the urban heat island effect, improve air quality, enrich public space, and provide for traffic calming. Examples include open space, trails, wetlands, community gardens, green streets, infiltration facilities, and the urban forest.
S A1	Support wellness and prevention education in schools and the general public to reduce the burden on primary care.
S A8	Make healthy and local foods accessible, particularly in underserved areas by removing barriers and providing incentives for the establishment of sustainable community gardens, urban farms, neighborhood grocery stores, farmers markets, and farm stands and mobile vegetable sales carts.
S A9	Facilitate a strong and sustainable local food system by linking farmers, distributors, and markets, and create programs and partnerships to ensure profitable local food enterprises throughout all five food sectors – production, processing, distribution, consumption, and waste recovery.
S A10	Develop partnership with public and private stakeholders to promote awareness and educate residents about healthy food choices, sources, and preparation, including keeping up-to-date and accessible data on community garden plot availability, cooking classes, and city and county property for neighborhood gardens and family farms, and the sale of sustainable produced and culturally appropriate food at farmers' markets, farm stands, mobile vegetable carts, and neighborhood grocery stores.
S A11	Reduce obesity and other diet-related diseases by establishing local fresh food initiatives in institutions such as schools, colleges, universities, hospitals, nursing homes, city and county departments and facilities, and by implementing and encouraging purchasing policies that support local and sustainable foods.
S A12	Remove regulatory barriers and provide incentives to improve and rebuild local food production, processing, and distribution systems appropriate to the local context.

Table 3.2 Continued

S A49	Develop educational and public information programs focusing on promoting nutrition, healthy food, and local food sources.
S A50	Work with local school districts to use locally-grown produce and increase the quality and nutritional value of food serve to school aged young people.
S A54	Create more opportunities for outdoor play, recreational activities, healthy eating, and other activities and programs that address obesity.

City of Austin

The above-mentioned policies and actions clearly demonstrate that the City of Austin has food system goals embedded across multiple departments, but without a strategic plan, these food system goals lack the regulatory measures to facilitate implementation. Austin is in need of a food system plan to ensure that city departments, programs, and resources are strategically involved in the monitoring, oversight, and tracking of this well-documented vision of a strong community food system.

The City has recognized the need for leadership and community input to create policies and regulation for food system activities. An initial Austin food policy council began in the mid-90s as a result of a report, "Access Denied," produced by Sustainable Food Center (SFC), a local sustainable food system non-profit, which addressed food access issues in East Austin. The council was active long enough to advocate for an additional bus to a local grocery store route in one East Austin neighborhood. The council did not remain active for long, but this food policy council was ahead of its time, preceding many other city food policy councils across the country (R. Rutledge, personal communication, March 9, 2015).

In 2008, a Sustainable Food Policy Board was strongly advocated for by Marla Camp of Edible Austin, with the assistance of Mark Winne, a well-known early advocate

of food policy councils and one of SFC's Advisory Council members who formerly served with the Community Food Security Coalition and consults on food policy council formations and trainings across the country. The Austin/Travis County Sustainable Food Policy Board (SFPB) was officially established through Ordinance 20081120-058, which added the SFPB to city code and described its purpose, followed by an ordinance approved by the Travis County Commissioners' court. In the spring of 2009, the board was seated and began to meet.

The SFPB is an advisory body to both the Austin City Council and the Travis County Commissioners' Court to improve the availability of safe, nutritious, locally and sustainably-grown food at reasonable prices for all residents, particularly those in need (City of Austin). The purpose of the SFPB is to "address health disparities and end food injustices through research and advocacy, to ensure community leaders have a voice in policy decisions that support a healing, thriving, and sustainable local food system in Austin/Travis County" (City of Austin). The scope of the board's charge comprises "the assessment and strengthening of Austin and Travis County food systems as well as the accessibility and affordability of fresh food and the effectiveness of outreach and education"; essentially, the board advises policymakers about a sustainable local food system and food access and wellness as well as exploring new means for the City and County to improve the local food economy and coordinate efforts (City of Austin).

The 2015 SFPB goals and working groups are to: 1) Continue retail capacity work that educates and promotes traditional and non-traditional healthy foods, including alternate methods of distribution of local, sustainable foods; 2) Ensure community leadership engagement and participation in food systems-related discussions that address

"food access" at different scales (e.g., transportation, affordability and distribution) as part of the CodeNEXT process and facilitate/integrate a Neighborhood Food Systems Planning Process to recommend resident-driven food policies that support a healthy, accessible, and sustainable food system; 3) Increase farmland preservation for sustainable, local food production; 4) Increase access to land used for sustainable, local food production – including improving the feasibility of farming – especially for potential farmers with limited resources and from diverse communities.

Other city departments and programs that explicitly address food are the Office of Sustainability, Health and Human Services, Economic Development, Parks and Recreation, and the Sustainable Urban Agriculture and Community Garden Program (SUACG). The most recent addition of a Food Policy Manager position to the Office of Sustainability further reflects recognition of the need for food system leadership at the City of Austin. Through the guidance of the Food Policy Manager, City of Austin food sector data has been collected to create a report on the current state of the food system and potentially establish metrics for a future food system plan (see Appendix).

One important piece of the Austin landscape that affects the SFPB as well as city efforts to improve the local food system is the recent development of new political geographical boundaries by districts. In 2013, Austin experienced a contentious redistricting process to shift from a seven-member, all at-large group City Council towards a single-member district system with an 11-member, mostly districted Council body. Much of the support for the new system was based on issues of equity and representation; new council members would be more representative of their district (Kanin & Pagano, 2013). The Austin Independent Citizens Redistricting Commission

was charged with drawing ten new single-member City Council district boundaries in compliance with federal and state requirements through an open and transparent process that enabled full public consideration and comment. A series of public meetings, were held throughout the months of August 2013 through November 2013. The Commission worked to ensure that the districts were geographically contiguous and compact, minimizing the impact on local neighborhoods or communities of interest, used existing election precinct boundaries, and had geographically identifiable boundaries. Comprised of fourteen diverse citizen volunteers from throughout Austin, selected through a transparent and independent application process, Austin Redistricting's Independent Citizens Redistricting Commission was committed to informing and hearing from the public throughout this historic process. On November 18, 2013, the Commission voted unanimously to approve a final map. 2014 not only saw the formation of 10 new Council districts with 11 new Council members but also ended with the election of a new mayor, Steve Adler, in December. Ultimately, there is potential to explore how the new districts could be useful or even beneficial to equitable food system planning, especially in relation to neighborhood food projects.

Community Leadership

A food system plan requires strong leadership and community involvement. Many Austin leaders, community members, and organizations are already involved in multiple aspects of the food system and are poised to engage in food system planning efforts. At the community level, there are many food, health, agriculture, and social justice non-profit organizations, school and community garden leaders, businesses and restaurants,

farmers' markets, and farmers who are actively involved in growing, selling, eating, and recovering food. These individuals have contributed their time, knowledge, and resources to community issues such as healthy food access, urban farming, healthy food retail, community gardens, and other food system topics that have shaped resolutions and ordinances. Their contributions have led to policy changes, and undoubtedly, these community leaders will continue to be involved relevant to the development of Austin's food system. Entities already involved in strengthening the local food system include Sustainable Food Center, urban and peri-urban farms, farmers' markets (SFC, HOPE, Cedar Park/Mueller), community gardens, Urban Roots, Compost Pedallers, Urban Patchwork, Moontower Agricultural Co-op, faith-related organizations and places of worship, Festival Beach Food Forest, Food for Black Thought, Texas Young Farmers' Coalition, FARFA, Food is Free, Resolution Gardens, Green Corn Project, Edible Austin, Multicultural Refugee Coalition, restaurants, food entrepreneurs, and more.

One compelling example of community leadership and collaboration took place in 2009, when Festival Beach community garden members approached Sustainable Food Center (SFC) in search of a new location for their garden. The garden had first been started in the 1990's by community membeers and was originally named El Jardín Alegre. It had been located on private property, which would soon be sold because of rising property costs in East Austin. SFC worked with the gardeners and the City to find a new city-owned property near the shores of Lady Bird Lake, and through the process, pioneered ordinances and policies for community gardens to locate on public land, laying the groundwork for the City's new Sustainable Urban Agriculture and Community Garden Program.

Community efforts helped establish the ordinance, which led to a successful groundbreaking of the new location of Festival Beach Garden in 2010, attended by community members and elected officials. In 2011, the garden received an official proclamation from the Mayor. These community-led efforts and collaborations have resulted in a thriving garden used by the Multicultural Refugee Coalition, a neighboring senior living center, neighborhood schools, recreation centers, and nearby residents.

In summary, Austin is ready for more actions to strengthen its community food system, in collaboration with multiple diverse stakeholders who are already actively engaged in food-related activities, as shown by previous grassroots work and successful projects initiated and supported by community leaders. Many of these efforts and interest helped to shape *Imagine Austin*, the Sustainable Food Policy Board goals, food-related ordinances, and city department programs. Community leaders and residents are ready to engage in food system planning alongside the City to create a stronger, more accessible local food system that addresses community priorities.

Illustration 3.1 Aerial View of Festival Beach Garden

El Jardin Alegre gardeners created Festival Beach Community Garden on City land. *Source: SFC*

CHAPTER 4: Review of Literature

While there is now more food system planning literature readily available, the majority of research has primarily focused on the consequences of a broken food system and piecemeal solutions addressed within distinct fields. There is still a need for further research and literature on food systems planning and specifically, best practices for food system plans. In this chapter, I will review literature presented by themes: food systems, food security, healthy food access, and food justice. Lastly, I will address the gaps in literature and how those gaps relate to my research. I will review academic articles from the fields of policy, planning, public health, agriculture, economics, and nutrition and books such as *Stuffed and Starved* by Raj Patel, *Closing the Food* Gap by Mark Winne, *The Omnivore's Dilemma* and *In Defense of* Food by Michael Pollan, *Fast Food* Nation by Eric Schlosser, and *Agricultural Urbanism* by Janine de la Salle & Mark Holland. Which provide definitions, perspectives, and proposed solutions to current issues.

A review of food system planning literature will show the existing available resources and strategies while acknowledging the gap in research on creating food system plans. The literature reviewed has two scales of focus: the U.S. overall and the City of Austin. The literature describes the issues and efforts that laid the groundwork for the field of food system planning, presents important resources for creating an Austin food system plan, and shows how Austin's unique food environment can be shaped through food system planning. Furthermore, the literature grounds this report in interdisciplinary research that demonstrates how planning is well-suited for addressing community food systems while making a call for further research on strategies and best practices for creating food system plans.

Food System

Cities have long treated food as an isolated system that exists outside of the urban context. However, food shapes lives, and the way humans grow, store, and eat food creates "cultural, ecological, and economic patterns" for how humans and societies live and relate (de la Salle and Holland, 2010, p. 21). Food is now recognized as an entire system and is an interdisciplinary field, drawing in planning, policy, and public health, to name a few. Pothukuchi and Kaufman (2000) were the some of the first proponents of food systems planning, defining the food system as "the chain of activities connecting food production, processing, distribution, consumption, and waste management, as well as the associated regulatory institutions and activities" (p. 113). More recently, the food system has been defined as the "network of activities, actors, resources, regulations, and institutions required to produce, process, distribute, and dispose food" (Neuner, Kelly, and Raja, 2011, p. 2). The planning field had previously paid little attention to the role of the food system and its place alongside other community systems that contribute to the livability of cities. Pothukuchi and Kaufman's call for improving the food system through planning served as a catalyst for the widespread use of the term "food system" and development of the role of planning in improving community food systems.

The food system impacts other areas in which planners are involved, such as public health, economic development, environment and natural resources, transportation, open space, energy, water resources and quality, and neighborhood revitalization. The food system is quite relevant to uses that affect "economic vitality, ecological health, sense of place, and quality of community life" (APA, 2005, p. 2). In an extensive literature review, Golden (2013) at the University of California Davis has demonstrated

the multiple social, health, and economic impacts of urban agriculture, which correlate with similar food system impacts. The literature review also addressed some environmental impacts but found that social impacts were the most frequently documented (Golden, 2013). These impacts demonstrate that food has always shaped cities, as it was once "the most highly regulated commodity in existence," and by nature, transforms landscapes, political structures, public spaces, and social relationships (Steel, 2008, p. 145, 307). These multiple linkages have defied the urban/rural dichotomy that relegates food outside of the city, encouraging cities to think of food as an integral urban system. Because of its cross-disciplinary nature, as shown by multiple authors, food require a holistic approach because its many facets are interrelated to other community systems, which makes it an ideal system to address within the field of planning, a field that is intrinsically interdisciplinary. Existing literature shows how the food system impacts physical, economic, environmental, and cultural health, which are key aspects of holistic community health.

Physical Health

One of the most prevalent consequences of a broken food system is the negative impacts on physical health. In North America and globally, many people are food insecure and struggle with hunger on a daily basis, while many others lack access to healthy food choices, giving rise to an increase in diet-related diseases such as obesity, diabetes, cardiovascular diseases, and certain types of cancer (de la Salle and Holland, 2010, p. 41). Burke (2011) explains the interconnectedness of food systems and human health, noting that the "simultaneous escalation in obesity rates and evidence of a food

system marked by a lack of access and sustainability suggest the need for comprehensive systematic approaches" (p. 222). *Imagine Austin* also recognizes the relationship between food and public health, noting in its food-related policies the need to facilitate healthy food access, promote wellness and prevention education, address food deserts and locations of supermarkets, locate housing near healthy food sources, and create programs for healthy eating that reduce obesity.

A number of food systems issues have contributed to poor public health. Burke (2011) cites food system weaknesses, such as food insecurity, lack of consistent access to healthy food, poor consumer choices, and prevalence of unhealthy foods as having contributed to both obesity and hunger, two seemingly dichotomous consequences. The APA also notes that the food system, particularly a lack of access to healthy food, is linked to the epidemic of obesity and diet-related diseases such as heart disease, cancer, and diabetes (APA, 2005, p. 6). Walker et al. (2010) researched this same link and show how poor supermarket access leads to residents having increased exposure to highly processed, energy-dense, "empty calorie food," easily available at convenience stores and fast-food restaurants (p. 877). U.S. policy is also at the root of poor public health. Multiple authors have researched how U.S. agricultural policies that provide federal subsidies for industrial growers of corn and soy commodities have led to unhealthy diets comprised of highly processed foods made from these crops (Spittler et al., 2011; Foster, 2011; Pollan, 2008; Patel, 2012; Schlosser, 2005; Bittman, 2011).

Changing the food environment is necessary for changing individual behavior and facilitating healthy choices. Story et al. (2008) note that healthy choices "can occur only in a supportive environment with accessible and affordable food choices," thus it is

necessary to engage in a public health effort that addresses the contexts and conditions in which people make dietary choices (p. 254). Environmental and policy interventions can improve food environments in settings such as child care facilities, schools, work sites, after-school and summer school programs, retail food stores, and restaurants and fast-food outlets (Story et al, 2008). Addressing food environments, *Imagine Austin* has set forth a related action to reduce obesity and other diet-related diseases by establishing local fresh food initiatives in institutions such as schools, colleges, universities, hospitals, nursing homes, city and county departments and facilities, and by implementing and encouraging purchasing policies that support local and sustainable foods.

The APA also addresses the link between obesity and the built environment, suggesting that land use and transportation policies are implicated in the rise of obesity through increased food consumption and a reduction in physical activity, whereas neighborhoods where supermarkets offer more healthful food choices can result in lower rates of obesity (2007). Food system planning can use policy and regulatory mechanisms to influence the location of supermarkets, access to nutritious foods, and availability of a variety of healthy food sources (APA, 2005, p. 6). Pothukuchi and Kaufman (1999) encourage city departments, food policy councils, and community organizations to work together and address how to improve public health by increasing access of low-income residents to food stores through transportation; educating residents and leaders on issues related to nutrition, food shopping, gardening, and preparation; strengthening urban-rural links by connecting local farmers with local consumers; and creating innovating healthy eating programs. There is an inextricable link between food and public health – an impetus for planners to consider how food systems can build healthier communities.

Economic Health

The food system impacts the economic health of a community and is, in turn, shaped by the global economy. Currently, the global food system is dominated by large corporations and firms that have consolidated and own entire product chains from seed to table, leaving little room for local food businesses to compete (APA, 2005). Pothukuchi and Kaufman explain how technological changes in transportation, food preservation, and processing led to the sourcing of food from more distant places, allowing for farms in the industrialized world to become "intensively cultivated by increasingly corporate players" (1999, p. 215).

Spittler, Ross, and Block (2011) have researched U.S. federal subsidies for corn and concluded that these policies have enabled the U.S. to manipulate the food supply and affect food prices, leading to negative externalities and long-term consequences, such as inefficiencies in the global market for food, the rise of government sponsored monopolies in the agriculture industry, and negative health implications (p. 301). Foster (2011) explores how agricultural subsidies for corn, soy, and cereal grains has led to food that is cheap, highly processed, and contains excessive amounts of sodium, fat, and calories, which have contributed to an estimated $147 billion in annual healthcare costs (p. 236-237). From the Agricultural and Resource Economics field, Alston and Sumner (2007) have concluded that by dominating the agricultural budget and policy attention, program crop subsidies "may actively hinder the interests of unsubsidized commodities and non-commodity-specific interests," and the spending on crop subsidies uses funds that might otherwise go for investments in "public goods to improve agricultural

productivity and enhance farm demand for farm products, research, protection from invasive species, nutrition information, and infrastructure investments" (p. 13).

Author Carolyn Steel in *Hungry City* explains that consolidation of the food industry means an "ever-more powerful oligopoly of companies are slicing up the cake between them" (2008, p. 97). The APA recognizes this type of ownership in the food system has led to negative outcomes for market competitiveness, local tax base and employment, and product availability, affecting both producers and consumers (2005). Patel, Pollan, and Schlosser also explore the consequences of large food corporations and industrial agriculture on local economies. Patel (2012) finds that large agribusinesses, and food corporations are responsible for the increase in hunger and obesity, loss of agricultural biodiversity, poverty and economic downfall. Retail giants are often constrained by profitability, which drives their ethics, as seen in the treatment and wages of workers in the food system (p. 315, 316). The APA echoes the problems associated with a lack of diversity in the food system and the control of food varieties by a few corporations (2007, p. 3). These corporations source food globally because their economic logic determined it can be produced cheaper in other countries, but if international freight and fuel costs rise, it will drastically increase the price in food and change the way food is produced and distributed (Steel, 2008, p. 100).

Despite the plethora of choices at large supermarkets, these businesses often "employ fewer people and charge more for less fresh food than local growers and businesses" when in fact, a greater variety of choices, often for a cheaper price than in supermarkets, can be found in local markets (Patel, 2012, p. 312, 313). Author Pollan also examines the topic of choices, demonstrating how current industrial agricultural

system has led to a loss in crop and animal varieties, which are no longer sold in grocery stores, as industrial agriculture primarily practices monocropping of a few varieties of high-yielding plants, and food retail outlets often source from large, industrial farms (2008, p. 118). In the industrial food system, economic choices are limited because power and status play a large part in determining what, when, how much, and with whom one gets to eat, and "control of food is power" (Steel, 2008, p. 213).

In *The Economic Impact of Austin's Food Sector* report, TXP, Inc. found that local food can play a strong role in strengthening Austin's food economy; in 2007, local food grown directly for consumption brought in $1.3 million (TXP, Inc. 2013, p. 18). TXP, Inc., de la Salle and Holland, and the APA have also found that farmers benefit the most from direct sales to consumers through farmers' markets, farm stands, or community supported agriculture (CSA), rather than going through distributors, which reduces their overall profitability. Patel also suggests supporting and building relationships with farmers directly through CSAs, which reduce distribution trips for farmers while also reducing time consumers spend in cars driving to supermarkets (p. 313). Local food businesses are better for the local economy because money is "recycled within the community and spent on local goods over and over again," known as the "community multiplier effect," (p. 313). The TXP, Inc. report also mentions the multiplier effect and benefit to the region that local food can have and suggests that if local agricultural businesses can produce foods that grow well in Central Texas and replace them with foods from outside the region, there will be a positive effect on the local economy (TXP, Inc., 2013, p. 20). The APA Policy Guide on Community and Regional Food Planning suggests ways that local purchasing can be promoted through

policy, such as a local food purchasing policy for city departments, which the City of Austin is currently exploring (2007).

However, local does not always imply better; authors Born and Purcell warn planners against the "local trap," which is the belief that the local scale is inherently better than the global scale (2006, p. 195). Local-scale food systems can be "just or unjust, sustainable or unsustainable, secure or insecure" (Born and Purcell, 2006, p. 195). Their being local does not automatically infer equity, and there is growing awareness that measures should be taken to ensure that local food systems are also accessible and equitable. Burke (2012) emphasizes the need to "construct, embrace, and advance food systems that link food production to nutrition and health outcomes in the context of environmental stability, economic viability, and social justice" (p. 155). Although strong economic forces may control the global food system, cities do stand to benefit from supporting a strong and just local food economy.

Environmental Health

Cities are increasingly encroaching upon agricultural lands, damaging the environment, and "compromising the stability and diversity of the urban food supply" (de la Salle and Holland, 2010, p. 14). The preservation of agricultural land is a priority on the planning agenda, with the increase in urban sprawl (Pothukuchi and Kaufman, 1999, p. 217). *Imagine Austin* has created policies and actions for purchasing conservation easements and open space for sustainable agriculture. However, the food system itself also impacts environmental health through the amount of energy and resources required to grow, process, transport, and distribute food; both agricultural inputs and outputs affect

ecological systems. As Austin grows, it will be important to consider how to sustain a food supply within and around urban boundaries in ways that are environmentally sustainable for future generations (de la Salle and Holland, 2010, p. 14). The APA also takes a look at the future viability of agricultural land, encouraging community food systems to promote sustainable methods for producing, processing, and distributing food, as well as favoring local distribution networks over global, to reduce the impact from fossil fuels required for shipping (APA, 2008, p. 4).

Food system planning can encourage sustainable growing methods and strong local distribution networks that respect the linkages between food and environmental health. The global food system is built upon the idea that resources are unending, and depletion means simply moving production elsewhere in a race to the bottom. The size of the global food system's ecological footprint also makes it fragile; without the energy available to manufacture and ship pesticides and fertilizers, it would fail (Patel, 2008, p. 300). Patel also explores the detrimental effects of farmers relying on monocultures for their main crops (2012). Dependency on only a few monocultures can lead to environmental disaster and food insecurity (APA, 2008, p. 4). Pollan (2008) also writes in *An Omnivore's Dilemma* that monoculture, as in the case of industrial corn in the U.S., has pushed out not only other species of plants but also people, as acres of subsidized corn were planted with the support of agricultural policies (p. 39). As suggested by the APA in its policy guide, food system planning can address these harmful consequences and encourage sustainable growing practices that increase biodiversity and minimize harm to producers and consumers.

The current food system demands unsustainable levels of energy and water use, contributes to global warming, depletes soil fertility, and is susceptible to disease (Patel, 2012, p. 300). Chemical inputs such as fertilizers and pesticides have contributed to water pollution problems, especially in areas near large, industrial farms (Pothukuchi and Kaufman, 1999, p. 217). Concentrated Animal Feed Operations (CAFOs) are "some of the worst offenders, producing solids, liquids, and gas in excessive quantities that damage the land, water, and atmosphere, contributing to climate change even more than driving cars" (Patel, 2012, p. 304). Along with animal waste, food waste is a significant portion of the household, commercial, and institutional total waste that ends up in city landfills, and planning can address this through local policies (Pothukuchi and Kaufman, 1999, p. 217). De la Salle and Holland summarize the problems behind relying on a distant "global hinterland" that supports unsustainable practices, noting that food is now grown, processed, sold, and eaten through a complex global system, which needs to "refocus on using less energy and re-building diverse scales of agri-food infrastructure" (2010, p. 24). Multiple authors note that a more community-scale food system would reduce distance between consumers and producers, promote sustainable growing practices, and allow for increased transparency in food production, improving environmental health.

Cultural Health

Lastly, food is a vital component of cultural health through local foodways, traditions, celebrations, and relationships. A community food system can embrace, promote, and celebrate both healthy and local food. Celebrating food requires making food system elements as visible as possible and encouraging transparency to enhance the

connection to the food we eat (de la Salle and Holland, 2010, p. 89). The distance between producer and consumer is often massive, due to the way the global food system has changed food production and distribution. The industrial revolution "made the population reliant on imported processed food and created the world's first industrialized palate," creating an increasingly uniform food culture of convenience that began to lose its unique cultural identity (Steel, 2008, p. 237).

What has resulted in the United States is a food culture more riddled with health concerns, anxiety, and inconvenience rather than community, traditions, and self-sufficiency (Steel, 2010, p. 244). An alienation from food has led to a lack of knowledge about what it contains, how it was produced, and the impacts it had on producers (de la Salle and Holland, 2010, p. 25). Incidents of contamination, outbreaks, and pandemics have created a culture of fear (de la Salle and Holland, 2010, p. 25). This can especially be seen in the fast food industry, which has created a "one-size-fits-all" approach to food production and distribution (Steel, 2008, p. 237). Because of the distance between producers and consumers, food is considered an agricultural issue and is "relegated to the lower end of the urban agenda," resulting in a lack of understanding about how food issues are a part of urban life (Pothukuchi and Kaufman, 1999, p. 213).

Multiple authors support the need for planning for the visibility of food to increase opportunities for awareness, understanding, and celebration of the food system. Planners can support using public spaces for festivals, tours, and community gatherings that celebrate food, especially local, seasonal varieties grown by gardeners and farms (de la Salle and Holland, 2010, p. 35). Cities can also embrace public markets, which once provided a cultural experience with food that occurred in shared public spaces imbued

with local identity (Steel, 2010, p. 147). One of *Imagine Austin*'s Policies for Society is to promote the availability of and educate the community about healthy food choices, including local food traditions, small-scale food processing, organic agriculture, and nutritional education programs.

Pothukuchi and Kaufman suggest other opportunities for a stronger food culture and sense of community through food cooperatives, farmers' markets, community garden groups, and food buying clubs, and CSAs, which alternatively favor direct connections between local farmers and city consumers, more environmentally sustainable food production, and a greater local and community self-reliance in which people can grow their own food or derive it from local sources (1999, p. 218). *Imagine Austin* proposes providing broad access to fresh foods through a wider variety of local sources such as local farmers' markets, co-ops, grocery stores, community gardens, and healthy restaurants in neighborhoods. Citizens can become what the Slow Food Movement calls "co-producers," discerning buyers who have a reciprocal, rather than a passive relationship with those who produce our food (Steel, 2008, p. 163).

A more visible and vibrant food culture also provides for increased community interaction, as community members come together to form goals for their food system and engage as producers and consumers. Campbell (2004) writes about the need for "building a common table" among different stakeholder groups, as multiple values, interests, and positions exist within the growing food movement (p. 342). She suggests finding a common language to unify researchers, practitioners, community members, and different social movements within the food system to bridge tensions in order to "achieve local food systems that are economically stable, environmentally sound, and socially

just" (2004, p. 342). One way to create a voice for community members is through a food policy council, which often functions in an advisory capacity to local governments and are involved in research and analysis, community engagement, education, policy advocacy, and community development (Pothukuchi and Kaufman, 1999, p. 219).

Although some communities lack a formal food policy council, community coalitions that exist outside local government can carry on activities similar to those by food policy councils to build relationships between community members, government, non-profit, and private sector organizations (APA, 2005, p. 8). Often, only a small segment of the population actively engage in the community decision-making process, so it is important to move toward engagement and consensus within the larger community to expand dialogue (Thomson et al., 2007, p. 184). There are many ways that each and every person can affect their food system and change it for the better (Patel, 2012, p. 307). Through public participation and community dialogue, shared values and common ground can be identified, developing a common language and providing participants with common knowledge to explore, influence, shape, and redefine issues to build community consensus and action strategies around food (Thomson et al., 2007, p. 186-188).

Food Security

Food security is a complex driver in the community food systems movement that is evident in both urban and rural areas. The USDA defines food security as "having access to enough food for all household members, at all times, to lead active healthy lives" (Rutten, 2012, p. 2). The APA defines food security as "access to healthful, affordable, and culturally appropriate food at all times" (APA, 2008, p. 4). It has also

been defined as "access by all people at all times to enough food for an active, healthy life and includes, at a minimum; 1) the ready availability of nutritionally adequate and safe foods; and 2) an assured ability to acquire acceptable foods in socially acceptable ways" (de la Salle and Holland, 2010, p. 95).

Alternatively, food insecurity refers to "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (de la Salle and Holland, 2010, p. 95). Author Mark Winne writes in his book *Closing the Food Gap*; "the more common form of food insufficiency is known as food insecurity, a condition experienced by a much larger number of people who regularly run out of food or simply don't know where their next meal comes from" (Winne, 2008, p. xviii). SFC's *Access Denied* report defined food security as a "prevention-oriented measure involving access to an acceptable, nutritious diet through local, non-emergency sources" (SFC, 1995, p. 2). Winne also emphasizes that food security does not include emergency food sources, such as food banks, which are not part of a sustainable food system (Winne, 2008, p. 70).

Food insecurity is often related to poverty and occurs in areas where reliable food sources are unavailable, typically referred to as "food deserts." The first reference to a food desert was introduced in 1995 by a Scottish working group of a Nutrition Task Force, but today, definitions vary. It often refers to an area with limited access to healthy food – a neighborhood where "few or no food stores are located," where residents are unable to make "frequent trips to distant food stores to purchase healthful foods" (APA, 2008, p. 3). Food deserts are also defined as areas in which it is often difficult to access fresh food without a car (Patel, 2012, p. 49). The 2008 Farm Bill defined food desert as

"an area in the United States with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower-income neighborhoods and communities" (Karpyn, 2012, p. 28). In the U.S., food deserts developed due to various factors. Three interconnected issues of "hunger, supermarket abandonment of urban America, and a growing discontent with food and the environment" began in the 1960's and loomed large in the 1980's (Winne, 2008, p. 8). Patel explains that urban sprawl created a new geography that required car ownership and perpetuated the development of big box retail and the location of supermarkets in areas that were able to afford them, often excluding low-income neighborhoods, neighborhoods of people of color, and even rural areas (Patel, 2012, p. 249).

The lack of access to food in low-income communities has been a driving force behind the growth in emergency food programs from the early 1980s until now (Winne, 2008, p. 70). Households that experience food insecurity often survive by "eating less varied diets, participating in federal food assistance programs, and accessing community feeding programs" (Rutten, 2012, p. 2). In 2009 in the U.S., an estimated 49 million Americans were food insecure, and food banks and soup kitchens provide assistance to more than 25 million people (de la Salle and Holland, 2010, p. 96). In 2010, the USDA's Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps, served approximately 44.7 million people each month (Rutten, 2012, p. 2). In Austin, SFC found that many low-income East Austin families live in an area with limited food sources and often cannot meet basic expenses and must rely on food assistance programs and food donations for survival (SFC, 1995, p. 2). "The importance of government

assistance programs and of emergency food programs to the food budgets of low-income families highlights the inadequacy of food resources in East Austin" (SFC, 1995, p. 10).

In 2011, for the first time, national funds were allocated to food deserts through grants through the Community Development Financial Institutions Program (CDFI) to develop solutions for increasing access to affordable healthy foods, followed by the Center for Disease Control and Prevention's (CDC) Communities Putting Prevention to Work initiative that funded 50 U.S. communities (Karpyn, 2012, p. 29). *Imagine Austin* addresses the issues of food deserts that are prevalent in low-income neighborhoods and includes an action to identify and map food deserts and provide incentives for full service grocery stores and farmers markets to locate in these underserved areas. Food system planning can address sustainable, reliable non-emergency sources of food in underserved areas. Furthermore, food system planning not only focuses on increasing reliable food sources but also prioritizes social equity and access to healthy food for community food security.

Healthy Food Access

As mentioned in the previous sections on the food system and food security, access to healthy food is a key aspect of a sustainable community food system and food security. Having food sources is not enough; neighborhoods need reliable, accessible varied sources of healthy, affordable, culturally appropriate food. A large number of studies have found "associations between access to supermarkets and healthier food intakes" and supermarkets offer the greatest variety of food at the lowest cost, including fruits and vegetables (Story, 2008, p. 257). Disparities in healthy food access influence

dietary intake and obesity, and "neighborhood residents that have better access to supermarkets and limited access to convenience stores tend to have healthier diets and lower levels of obesity" (Larson et al, 2009, p. 74). Many studies suggest that residents of low-income, minority, and rural neighborhoods are often most affected by poor access to supermarkets and healthy food, while the number of fast food restaurants and energy-dense foods is greater in lower-income and minority neighborhoods and often clustered in school neighborhoods (Larson et al, 2009, p. 74). While supermarkets are one common food destination for many urban and rural residents, it is also important to note that people obtain food from a wide variety of venues such as CSAs, farm stands, and farmers' markets; from their own backyards or community gardens; through cafeterias or farm-to-school programs; or through food banks and pantries (Raja, Born, and Russell, 2008, p. 84). Creating healthier food environments that include all of these food destinations in urban, suburban, and rural areas for people of all races and income levels can improve access to healthy food.

In their books, Patel and Winne also discuss the issue of disproportionate access to healthy food and the evidence that low-income, minority, and rural populations across the U.S. and the world often lack the most access to healthy food. In *Access Denied*, it was found that in 1995, in a low-income, primarily minority area of East Austin, only two supermarkets, Foodland and HEB, were located in a six-sq. mi. area serving 24,000 residents, in contrast with the rest of Travis County, which had one supermarket for every 8,876 people (SFC, 1995, p. 12). The two supermarkets that existed had fewer varieties and options of healthy food, such as vegetables and whole wheat bread, and at the Foodland, 29 out of 40 items were at least 10% more expensive than at the HEB (SFC,

1995, p. 12). Furthermore, Eastside shoppers expressed they lacked transportation to these stores, which they also felt had "poor security, dangerous parking lots, narrow aisles, poor food quality, and crowded checkout lines" (SFC, 1995, p. 12).

Limited healthy food access is a symptom of food environments where low-income residents must rely on cars or public transportation to reach grocery stores and where the fresh produce sold at many of these outlets are typically of limited selection, poor quality and higher price (Campbell, 2004, p. 348). A consequence of poor supermarket access is increased exposure to energy-dense, empty calorie food that is often processed and contains high contents of fat, sugar, and sodium, as opposed to a diet high in complex carbohydrates and fiber (Walker et al, 2010, p. 877). Additionally, people tend to make food choices based on the food outlets available in their immediate neighborhood (Walker et al, 2010, p. 877). The recognition of limited food environments and poor access to fresh, healthy food, especially in low-income neighborhoods has led to a strategic change in public health's approach to obesity prevention, and the emphasis on prevention has shifted from individual responsibility toward the role of the food environment in health promotion (Karpyn, 2012, p. 28). These efforts focus not only on increasing access to supermarkets but also to farmers' markets, community gardens, and healthy corner stores as part of a "growing community-based strategy to address the obesity epidemic and the grocery gap in many low-income areas" (Karpyn, 2012, p. 29).

The demand for local food sources has grown in recent years; the number of farmers' markets has increased from 1,775 in 1994 to 7,864 in 2012 (Freedgood and Royce, 2012, p. 4). In 2011, the number of farmers' markets in the U.S. increased by over 1,000, from 6,132 in 2010 to 7,175 in 2011; Texas alone experienced a growth of 38% in

farmers' markets (Karpyn, 2012, p. 29). *Imagine Austin* has recognized the role of the food environment and proposes a policy to provide broad access to fresh foods; local farmers' markets, co-ops, grocery stores, community gardens, and healthy restaurants in neighborhoods. It also proposes an action to make healthy and local foods accessible, particularly in underserved areas by removing barriers and providing incentives for the establishment of sustainable community gardens, urban farms, neighborhood grocery stores, farmers markets, and farm stands and mobile vegetable sales carts.

Reform of the food system should emphasize the "complex and dynamic relationships among food production, consumption, and health outcomes," where consumers can develop food selection practices and thus have agency and power to modify the food system through value shifts, which can lead to a higher demand of local agriculture, farmers' markets, and a more sustainable food system, defined as "one that is capable of being maintained over the long term, while meeting the needs of the present, and not compromising the ability of future generations to meet their needs (Burke, 2011, p. 224). A sustainable community food system would facilitate residents' access to healthy food, both now, and planners play an important role in achieving this goal (APA, 2008, p. 4).

Food Justice

Community food systems also have a strong focus on equity and food justice, which has increasingly been woven into the framework of food system planning. The food justice movement stemmed from different movements, such as the sustainable agriculture movement, which, much like the environmental justice movement, placed a

strong emphasis on community empowerment, social justice, and reduction of environmental risks to minority and rural populations (Campbell, 2004, p. 345). The concept of food justice is also similar to the vision of "food sovereignty" that aims to redress the abuse of the powerless by the powerful, focusing on the right of people to "define their agricultural and food policy…the right of farmers and peasants to produce food, and the right of consumers to be able to decide what they consume, and how and by whom it is produced," recognizing in particular the rights of women who play a major role in agricultural production and food (Patel, 2012, p. 308).

The APA proposes that a community food system embraces social justice, placing at its center the concerns of marginalized groups, including migrant farm laborers, financially struggling family farmers, and underserved inner-city residents, rather than corporations and agri-businesses (APA, 2008, p. 4). The Community Food Security Coalition has defined food security as "access to affordable, nutritious, and culturally appropriate food for all people at all times in the context of a system of growing, manufacturing, processing, making available, and selling food that is regionally based and grounded in the principles of justice, democracy, and sustainability" (Campbell, 2004, p. 346). Food justice focuses on "systemic change and the necessity for engaging in political and policy processes as well as consciously addressing issues of movement mobilization and strategies," drawing from concepts of democracy, citizenship, social movements, and social and environmental justice (Wekerle, 2004, p. 379). For many, promoting food justice is ensuring that food is produced in a way that respects the environment, animal health, and human health, and allows the growers of food to receive just compensation (Burke, 2011, p. 224). The National Good Food Network propose a

Rights Based Food System (RBFS) with core criteria: "democratic participation in food system choices affecting more than one sector, fair transparent access by producers to all necessary resources for food production and marketing; multiple independent buyers; absence of human exploitation and resource exploitation; and no impingement of people in other locales to meet this set of criteria" (Burke, 2011, p. 225).

Food justice is inherent in efforts to ensure that food is produced in an ethical, sustainable manner and that all residents have access to affordable, healthy food. However, this requires a united effort. Pothukuchi and Kaufman noted that food security efforts have not been successful in mobilizing a broad constituency or involving diverse food system stakeholders (1999, p. 220). Food policy councils are one way to ensure that food justice is addressed through grassroots, citizen-initiated policy-making and planning (Wekerle, 2004, p. 379). Grassroots efforts should include a network of "community agencies, advocacy groups, place-based movements, municipal agencies, and staff can work together to create a new political space for food justice issues, as in the case of Toronto (Wekerle, 2004, p. 381). In Austin, the Sustainable Food Policy Board Food has proposed to "address health disparities and end food injustices through research and advocacy, to ensure community leaders have a voice in policy decisions that support a healing, thriving, and sustainable local food system in Austin/Travis County" (City of Austin). The City of Austin has also shown an interest in addressing issues of equity and representation through the new 10-1 redistricting process. Food system planning can integrate food justice by evaluating and systematically addressing barriers related to food access for all populations (APA, 2005, p. 10).

Food System Planning

Author Winne explains that food system thinking allows ways to think about the food gap in a comprehensive way, without isolating one segment of food activity from another – all parts of the system "from seed to table, are connected in a vast and complicated web, and the more we understand those connections, the more likely we are to narrow the food gap" (Winne, 2008, p. xix). The interaction of food with other community systems is also highlighted by Pothukuchi and Kaufman (2000). The APA notes it is important to see how the food environment is closely linked with the built, social, economic and cultural environments of a community and shaped by people and their values (Raja, Born, and Russell, 2008, p. 86).

Five years after Pothukuchi and Kaufman defined the food system and urged planners to step up to the task of food system planning, the APA recognized the food system in 2005 and published a white paper and policy guide towards integrating food systems into planning practice. The 2007 APA Policy Guide on Community and Regional Food Planning provides findings on food system issues and policies that can be adopted by local governments and suggests ways planners can engage in food system planning to address community and regional food systems as well as the industrial food system. In 2008, the APA published a PAS report, "A Planner's Guide to Community and Regional Food Planning: Transforming Food Environments, Facilitating Healthy Eating," which covers how community and regional food planning can facilitate healthy eating in communities, survey results of planners' opinion of and role in food system planning, and six case studies of communities that have implemented innovative healthy eating strategies (Raja, Born, and Russell, 2008). In 2012, the APA published "Planning

for Food Access and Community-based Food Systems: A National Scan and Evaluation of Local Comprehensive and Sustainability Plans," which reviews current plans that have addressed aspects of the food system and provides recommendations for municipalities and counties engaging in food systems planning (Hodgson, 2012). These and other guides provide planners with a set of tools for integrating the food system into practice.

To facilitate the integration of traditional planning and food system planning, the APA Policy Guide suggests two main goals for planners: "1) to build stronger, sustainable, and more self-reliant community and regional food systems, and 2) to suggest ways the industrial food system may interact with communities and regions to enhance benefits such as economic vitality, public health, ecological sustainability, social equity, and cultural diversity" (APA, 2007, p. 2). The Policy Guide also provides findings on how the food system impacts localities and regions and suggests seven general policies, for which planners can play several roles (APA, 2007, p. 2). Categories of key findings include: general effects on the food system on local and regional areas, food system links with the economy, food system links with health, food system links with ecological systems, food system and social equity, native/ethnic food cultures, and comprehensive food planning and policy (p. 3-7). Commonly, planning has also addressed land use, and as a result, created policies for community gardens and urban farms to locate on public land (Raja, Born, & Russell, 2008).

There are specific strategies covered in food system planning literature that planners can use to improve food environments for healthy eating and strengthen community food systems. The majority of suggestions focus on creating food policy councils, exploring roles planners can play in strengthening food systems, and creating

food-related policies, while only a few articles suggest including food in plan-making, either as an element of a comprehensive plan or as a stand-alone plan. Pothukuchi and Kaufman first suggested comprehensive approaches such as creating a municipal department of food and a food policy council (1999). The APA PAS report acknowledges that food rarely falls under the responsibility of any single local department, but planners can play the role of facilitators, coordinators, and negotiators between agencies and departments (Raja, Born, & Russell, 2008, p. 92). The report also encourages creating a food policy council to advise local and state governments on food policy and advocate on behalf of the community (p. 16). Campbell (2004) also describes the role of planners and suggests facilitating the creation of local food policy councils as a way to for create food policy and to encourage "public participation in food democracy and participate with other municipal and nongovernmental agencies in developing local food policy" (p. 350). Hodgson (2012) found that food policy councils tend to focus on policy analysis, education, coordination, and partnerships, and focus on specific interventions (p. 3).

Alongside the support for food policy councils is a newer, growing interest in food system plans. The APA supports including food as an element in other plans or create stand-alone food plans that focus on one or several aspects of the food system (Raja, Born, & Russell, 2008, p. 97). A report by Neuner, Kelly, and Raja (2011) echoes how local governments can include food as an element or sub-element within comprehensive plans for land use, housing, transportation plans, sustainability, or environmental plans; alternatively, governments can create stand-alone food systems plans or plans for a particular component of the food system (p. 3). *Imagine Austin* is one example of a comprehensive plan that includes food elements within other systems.

Hodgson (2012) researched the development, adoption, and implementation of food related goals and policies of local comprehensive plans, as well as sustainability plans, in the U.S., and their "impacts on local policies, regulations, and standards for the purpose of reducing food access disparities and improving community-based food systems" (p. 7). The report collected 888 responses from local governments regarding: the location of the food system components in the plan; data and data collection tools; level of involvement of stakeholders; successes and challenges; and impact of the plan on food access and the larger food system (Hodgson, 2012, p. 7). Recommendations for municipalities include the following: develop a food policy council (FPC) to facilitate coordination, communication, and collaboration among food system stakeholders within and outside of local government; partner with and include key local government stakeholders in the planning process and encourage departments to determine how they can promote plan recommendations; develop a cross-appointed, intergovernmental food systems planning staff position, an intergovernmental working group, or cross-pollinating working groups to bring ideas together; partner with local foundations to leverage support for initial food system planning pieces but leverage other funds to continue efforts; and balance aspirational goals with measurable goals to enable monitoring and evaluation over time (Hodgson, 2012, p. 9).

Similarly, a report by the American Farmland Trust (2012) also identified and reviewed 134 food policy councils and food system plans to determine if they lead to state and local government actions to strengthen community food systems, finding that both approaches can make "incremental improvements in the food system and contribute to public policy changes, especially at local levels" (p. 3). Overall, a combination of both

food policy councils and food system planning seems to be a "promising approach" that "engages diverse stakeholders in the food system, analyzed data and policies, fostered dialogue, and educated the public about food and food policy issues" (p. 3).

There is a growing but limited amount of literature that focuses on creating food system plans. The 2008 APA PAS report suggests finding an appropriate scale for measuring the food environment and creating a plan: regional, municipal, or neighborhood (Raja, Born, and Russell, 2008, p. 87). Whether a government includes food as an element of comprehensive plans or creates a separate food system plan, there are several important ways to strengthen the plan. Born and Purcell (2006) warn against avoiding the local trap and remind planners the local scale for food may not be inherently good, and "the outcomes produced by a food system are contextual and depend on the actors and agenda that are empowered by the particular social relations in a given food system" (p. 195). Addressing the social aspect of food, the APA PAS report suggests the first step in food system planning is gathering community input. De la Salle and Holland (2010) also encourage using a community visioning process to inform the development of strategic plans (p. 124).

Hodgson (2012) found that food system plans tend to be holistic and suggest broad policy, program, and investment recommendations (p. 3). Neuner, Kelly, and Raja (2011) suggest how food system plans may also focus on a particular component of the food system such as production, processing, distribution, consumption or disposal of food, or food access while also establishing goals for improving a particular component, assessing the conditions in this component of the food system, and providing recommendations for improvement (p.10). Creating strategies, recommendations, and

actions to reach goals is also important for a food system plan. Neuner, Kelly, and Raja also recommend having a plan that includes specific indicators, benchmarks, and targets to measure and evaluate progress towards goals (2011, p. 5). Some food system plans focus on a local area, such as a neighborhood, through which food system elements can be optimized, such as agricultural use and economic development (de la Salle and Holland, 2010, p. 124). There is limited research on differences between implementation at multiple scales such as neighborhood, district, city, county, and region, but the majority of stand-alone food system plans are city-wide (APA, 2008; Neuner, Kelly, & Raja, 2011; Hodgson, 2012).

Summary

Despite a growing body of literature on food system planning, there is a lack of research regarding best practices for food system plans. Some plans use indicators to measure progress based on the community context; however, there are limited case studies, strategies, and literature regarding how to create an effective food system plan and measure its impact. From the planning field, Berke and Conroy (2004) have evaluated sustainable development plans and researched factors that make a sustainable development plan good, examining the influence of four factors: dimensions of the planning process, state planning mandates, integration of the concept in plans, and local context. Their findings conclude that state mandates and participation breadth and population change are key factors for creating sustainable development plans. These findings can be used in further research needed for how local governments can create effective food system plans.

Food system planning literature has evolved from focusing on specific food system issues such as health, food policy, access to healthy food, the economic impact of food, environment, and food justice to holistic food systems strategies for community and regional planners such as creating policies and food system plans. However, this review reveals that a gap exists in literature on how to create food system plans and approach components such as scale, entities involved, and indicators to measure progress, which this report addresses. Further research on best practices for food system plans would provide planners with better insight into how to incorporate food systems into planning practice. This report will explore these elements that will potentially strengthen a plan, especially in the Austin context. By analyzing how existing plans have addressed these areas, this report will provide recommendations for the City of Austin on best practices for a food system plan regarding specific elements and areas of interest.

CHAPTER 5: Analysis of Food System Plans and Implementation

Five food system plans were chosen for the analysis portion of this report to inform recommendations for a food system plan for Austin. Specifically, the report analyzes four city-wide food system plans and one county-wide food system plan from Seattle, WA, New York, NY, Vancouver, Canada, Edmonton, Canada, and Multnomah County, OR. Several areas of interest were analyzed. For a general introduction to the plans analyzed, key elements of the plan and entities involved in creating the plan are important components to the plan-making process and are listed in Tables 5.1 and 5.3, and common elements and entities are summarized in Tables 5.2 and 5.4. A section on each plan provides a deeper analysis of components and the three areas of interest for the City of Austin. Interviews regarding barriers and progress with city staff are included to give further insight into the challenges and successes of implementation, progress, and overall impact of the plan. Understanding these aspects of a plan through the lens of city staff involved in food system planning will help guide the City's efforts. Questions for the interviews were constructed to address the plan-making process, challenges and successes in creating the plans, key partnerships or entities involved, geographical scale, implementation, tracking and measuring progress, and impact of the plan (see Appendix). These semi-structured interview questions allowed for city staff to elaborate on components of the plan and related guidance on key aspects relevant for Austin.

Table 5.1 Key Plan Elements

Plan	Key Food System Plan Elements
Seattle	• Background and benefits of the food system • Plan-making process • Goals & values • Strategies • Approach • Research agenda • Tracking progress and indicators • Summary of recommendations
New York City	• A history of the NYC food system • Opportunities • Agricultural production • Processing • Distribution • Consumption • Next steps
Vancouver	• Food strategy structure • Vancouver's food policy history and reasons for creating strategy • Plan-making process • Current condition of Vancouver's food system • Vision and principles • Goals • Actions • Implementation • Evaluation and monitoring
Edmonton	• Edmonton's food and urban agriculture reality • Planning for local food systems and a definition of local • Plan-making process • Food system elements and strategy frameworks • Strategic directions and recommendations • Enacting the strategy, engaging stakeholders, oversight, and success
Multnomah Co.	• Vision and principles • Call to action • Actions • Tracking progress and indicators • Declaration of support

Table 5.2 Common Elements Across Plans

Common Elements Across Five Food System Plans
• Background or History for food system context • Plan-making Process (often includes community engagement piece) • Goals & Values • Vision and Principles • Actions or Strategies • Implementation or Next Steps • Evaluation and Monitoring (Tracking Progress)

Certain governmental and community entities were involved in the plan-making processes. The respective local governments were the primary leaders in coordinating efforts, often guided by an interdepartmental team or steering committee. These unified efforts of engagement helped to connect city departments and community members.

Table 5.3 Key Entities Involved in the Plan-Making Process & Methods

Plan	Entities Involved in the Plan-Making Process & Methods
Seattle	**Entities:** City Interdepartmental Team from Seattle Office for Civil Rights, Human Services Dept., Department of Parks and Recreation, Office of Sustainability and Environment, Office of Mayor Mike MicGinn, Public Health – Seattle & King County, City Council Central Staff, Department of Neighborhoods, Deprtment of Transportation, Office of Councilmember Richard Conlin, Department of Planning and Development, Office of Economic Development, Seattle Public Utilities **Methods:** Seattle City Council passed the Local Food Action Initiative, food interdepartmental team, food policy advisor coordinated food work by departments, action plan team, community input through listening sessions and meetings
New York City	**Entities:** Baum Forum, New York City Coalition Against Hunger, The New School, Columbia University, FGE Food & Nutrition Team, New York State Department of Agriculture and Markets, Karp Resources, Stone Barns Center for Food and Agriculture, **Methods:** consultations with experts and stakeholders from the city, creation by Mayor's Office of Food Policy Coordinator and inter-agency task force at the request of City Council

Table 5.3 Continued

Vancouver	**Entities:** Vancouver Food Policy Council, City staff, neighborhood food networks, community organizations, multicultural community and the organizations and non-profits that serve them, immigrant settlement organizations, Neighborhood Houses, front-line staff, YMCA, religious institutions, governmental and non-governmental partners such as Metro Vancouver, Vancouver Coastal Health, Vancouver School Board, Vancouver Urban Farming Society, Vancouver Street Food Association, food-related non-profit organizations **Methods:** community consultation and public engagement process using roundtable discussions with key stakeholder groups, workshops, focus groups, toolkits and exercises, storytelling-themed public events, health and education fairs, targeted outreach to ethno-cultural communities, social media, blog
Edmonton	**Entities:** Food and Urban Agriculture Advisory Committee: Angus Watt Advisory Group, Sustainable Food Edmonton, Agriculture and Agri-Food Canada, Food Processing Development Centre, Greater Edmonton Alliance, Kuhlmann's Market Gardens, Alberta Netherlands Trade Office, Walton Development and Management, Toma and Bauma Management Consultants, Live Local and Blue Pear Restaurant, Edmonton Federation of Community Leagues, Horse Hill Community League, Faculty of Extension (University of Alberta), Growing Food Security in Alberta **Methods:** public engagement strategies such as citizen panels, stakeholder workshops, public opinion survey, landowner survey, Food in the City Conference, website, email list, blog, and Twitter, open houses, *fresh* feedback survey; research, analysis, and coordination with other City plans and initiatives
Multnomah Co.	**Entities:** Multnomah County Office of Sustainability, Multnomah Food Initiative Steering Committee Members and Community Partners that included 47th Avenue Farm, Bright Neighbor, Burgerville, City of Portland, CNRG, Cogan, Owens Cogan, LLC collaboration. Community, Food Security Coalition, East Multnomah Soil and Water Conservation District. Ecotrust Food and Farms. Ecumenical Ministries of Oregon. Growing Gardens. Hacienda Community Development, Loaves and Fishes, Metro, Montavilla Farmers Market, Native American Youth and Families Center, New Seasons Market, Oregon Food Bank, Oregon State University Extension Service. Portland Farmers Market, Portland/ Multnomah Food Policy Council, Portland Permaculture Guild, Portland Public Schools, Portland State University Institute of Metropolitan Studies, ReCode Oregon, The Dirt, Transition PDX, Upstream Public Health, Village Gardens Janus Youth Programs, Whole Foods **Methods:** Multnomah Co. collected and synthesized existing regional food system reports, assessments, and recommendations to develop draft goals. Multnomah Co. and the Steering Committee hosted the Multnomah Food Summit to connect and network the community around a draft Action Plan framework. The Multnomah Co. solicited input from the Steering Committee and hosted four community workshops and a public comment period. Lastly, Multnomah Co. and Multnomah Food Initiative Steering Committee invited all food system stakeholders to sign the Multnomah Food Action Plan's Declaration of Support and commit to working together.

Table 5.4 Common Entities Involved in Plan-Making Process Across Plans

Categories of Entities Involved in Plan-Making Process Across Plans
• Neighborhood and community groups • Academic institutions • Public agencies and departments • Businesses • Farmers' markets • Nonprofit organizations • Faith groups • Food businesses and restaurants (includes conventional) • Community gardens • Transportation authorities • School board, districts, and schools

Seattle, WA

In 2012, the City of Seattle's Office of Sustainability and Environment, in partnership with the Seattle Food Interdepartmental Team and the greater community created the *Seattle Food Action Plan*, a comprehensive food system plan which was a direct result of the Local Food Action Initiative passed by the Seattle City Council in 2008. The plan includes sections on the plan-making process, goals & values, strategies and actions, research agenda, tracking and indicators, and recommendations. The City's approach to achieving these goals centered on creating and sustaining interdepartmental and intergovernmental coordination on food issues; enhancing partnerships with the public and private sectors and organizations; stimulating collaboration among different organizations, institutions, neighborhoods, and governments; focusing on racial and social equity and supporting communities most at-risk for food insecurity and diet-related disease; increasing inclusive public communication and engagement opportunities; and using dating to assess conditions, priorities, and track progress. The following table outlines the goals for achieving a healthy food system as well as related strategies.

Table 5.5 Seattle Plan Goals and Recommended Strategies

GOALS	STRATEGIES
1. Healthy food for all: all Seattle residents should have enough to eat and access to affordable, local, healthy, sustainable, culturally appropriate food	• Promote the location of healthy food access points, such as grocery stores, healthy food retail, farmers' markets, food gardens, and farms, within walking or bicycling distance from homes, work places, and other gathering places • Use the City's purchasing power to support healthy, local, sustainably produced food • Support programs, policies, and projects that help get more healthy food to children and youth • Increase affordability of healthy, local food for low-income Seattle residents • Promote healthy food, especially in low-income communities and with youth, through education and collaborative efforts
2. Grow local: it should be easy to grow food in Seattle and in our region, for personal use or for business purposes	• Prioritize food production as a use of land • Develop and support programs to produce food on City-owned land • Support efforts to expand urban food production on privately owned land, including residential, commercial, and institutional properties • Explore opportunities to expand rooftop and building integrated agriculture • Work jointly with other jurisdictions to conserve agricultural land
3. Strengthen the local economy: businesses that produce, process, distribute and sell local and healthy food should grow and thrive in Seattle	• Support businesses that grown, distribute, process, and sell local and healthy food • Celebrate and enhance local food as an element of Seattle's economy and identity • Support farmers markets and small retailers that sell healthy and locally produced food
• Prevent food waste: food-related waste should be prevented, reused, or recycled	• Prevent edible food from entering the waste stream • Increase composting of non-edible food

Many of the recommended actions name specific entities that are involved in the action. Entities referenced are a mixture of city departments, county entities, coalitions, businesses, community organizations, urban agriculture-related entities, and neighborhood-scale organizations and groups.

To address tracking progress, the City also committed to preparing an annual report on the progress of the actions recommended and the results of the actions, outlining key indicators that would be used to track progress; percent of Seattle residents within one-quarter mile of a healthy food access point; percent of Seattle residents who are food secure; acres of City-owned land used for food production; value of local food sold at Seattle farmers' markets or other direct-to-consumer activities; value of EBT benefits redeemed at Seattle farmers' markets; acres of farmland preserved through the Landscape Conservation and Local Infrastructure Program; and percent of Seattle's food waste diverted for composting or recycling. The plan includes additional research topics needed to "understand where the best opportunities to improve the food system exist and how to address challenges" (p. 33).

In Seattle, measuring the progress towards food system goals was accomplished through the use of certain indicators outlined in the food system plan. In 2014, Seattle published its first citywide environmental accomplishments report, "Moving the Needle," which highlights progress and achievements in recent years. In the food section, strategies referenced are: "healthy food for all, local food production, and a strong food economy." Indicators from the food action plan are mentioned. The first goal for increasing healthy food access shows progress related to the Farm to Table and Fresh Bucks programs. The Farm to Table program uses city dollars to purchase local produce for city-funded early learning centers. Progress in Farm to Table includes a 45% increase from 2012 to 2013 in Seattle early learning centers purchasing healthy food from local farmers and a 300% increase from 2012 to 2013 in early learning centers engaging in food and nutrition education and training. In 2013, there was a 70% increase since 2012

in use of Fresh Bucks at Seattle Farmers' Markets, which is a matching incentive program for SNAP and WIC users to purchase fresh fruits and vegetables at farmers' markets. For the goal of increasing local food production, progress shows a 104% increase in 2013 in publicly accessible land for growing food since 1990, and an increase of 499 P-Patch gardeners from 2012 to 2013. For the goal of increasing local food consumption for a strong food economy, the report shows an increase in 1.1 million from 2011 to 2012 in total farmers' market sales. While a section on waste exists, there is no specific mention of progress on reducing food waste, which was the fourth goal in the food action plan with related indicators.

An interview with Seattle city staff involved in creating the food action plan revealed that the original Local Food Action Initiative passed in 2008 by Seattle City Council provided a direction to create a food system policy plan to set an agenda for what the city should work on in terms of food policy (City staff, personal communication, March 19, 2015). Due to changes in administration and departmental politics, it took some time for the plan to come together and was on hold for several years until the culmination of several events: the hiring of a food policy advisor and the advocacy by a City Council member who was a champion for food systems work. With a food policy advisor in place, the first charge was to create a food system plan and the process was streamlined because of limited time and increased priority to complete it.

Entities involved in creating the plan were an interdepartmental team with representatives from eight different departments, a representative from the mayor's office, and an internal team. Additionally, three community outreach meetings generated several priorities that the city team decided to use to formulate the plan (as opposed to

starting with partially formulated ideas). Three other open-ended, structured input sessions with the community created important feedback. The team then analyzed the feedback, completed a scan of best practices, and created a list of strategies after completing an inventory of all food system activities in Seattle for a background piece. The team decided to focus on activities that the City of Seattle could take on, in contrast to some plans that are community-action oriented. The plan focused on governmental actions that fit within the larger regional/community context.

Through the community input sessions, healthy food access and the issue of cost and affordability became a resounding priority. Because the City of Seattle has a social justice initiative, the City always looks at the impact of programs on communities of color or historically underrepresented or marginalized communities. The input from these communities shaped the implementation of plan, and although the City works across all areas of the plan, pilot programs that were created focus on making fresh healthy food more affordable and accessible. These pilot programs were the Fresh Bucks program and a Farm to Table program, both of which increase access to healthy food for low-income communities. The Fresh Bucks program for SNAP clients at farmers' markets is funded by $200,000 in city dollars as a result of strong community support and advocacy from community-based organizations in collaboration with elected officials. The Farm to Table program is supported in part by funding from Communities Putting Prevention to Work, a program of the Department of Public Health. This program looked at ways to use city dollars to purchase local, healthy food and connects local producers with childcare and senior meal sites funded by the City. In a partnership with the Northwest Agriculture Business Center, a food hub was created to help farmers aggregate produce and leverage

infrastructure to serve other markets such as restaurants. The Farm to Table program sites also receive training in scratch meal preparation, seasonal menu planning, nutrition education, and assistance with school gardens, farm field trips, and community cooking classes – all a part of the City's wrap-around technical assistance, in partnership with local organizations. Both programs have been successful in improving healthy food access for the most vulnerable populations while meeting multiple outcomes and helping regional farmers. Key partnerships were created with organizations that run farmers' markets in Seattle for the Fresh Bucks program and with the Northside Agriculture Business Center, Seattle Tilth, the Human Services Department, and Pike Place Market for the Farm to Table program.

The plan does not specifically mention scale for actions, but the City worked closely with the Planning & Development Department and the Neighborhood Planning Teams to collaborate with neighborhoods that are experiencing change. In 2011, the City developed a Healthy Living Assessment tool to integrate health into the community development process that includes areas such as food access, physical activity, and equity measures. This tool has helped to integrate food into planning at the neighborhood scale and with a framework and context to do so. In one low-income neighborhood, interest arose in creating an economic innovation and education center along with a new urban farm on city-owned property, all ideas that came out of a neighborhood planning process.

Challenges that arose varied by community across the city. Priorities varied in different neighborhoods in regards to food access and equity; some communities had a stronger focus on gardening while other communities focused on access to healthy food through the retail pathway. The City team had to balance the different priorities and

attempt to do work in all of those areas but through an overarching equity lens which helped to decide where more effort would be exerted with a range of strategies.

As far as indicators in the plan, city staff notes they have "a ways to go;" they were originally developed primarily based on data that was readily available and was relevant to activities, and the City had limited capacity to gather new data. However, the City has had many conversations since then regarding indicators and benchmarks.

Overall, the food action plan has had a great impact on the city in terms of improving access to healthy food that is affordable, expanding gardening projects on city-owned property, and changing urban agriculture land use policies to help individual gardeners on private property. Moreover, the plan has made a big impact internally on how the City thinks about and approaches food policy in terms of importance. The plan has facilitated internal education, and elected officials now have a better understanding about how the City has a role to play in food system activities. Furthermore, city staff noted the plan gave them the leverage necessary to create food policies that would support goals for the food system.

New York City, NY

In 2010, the New York City Council released *Food Works: A Vision to Improve NYC's Food System*, a comprehensive food system plan which outlines current conditions, goals, strategies, and a series of proposals or initiatives for specific food system categories. The plan proposes 59 strategic actions to "improve health outcomes, community and economic development, and environmental sustainability" through investments and policies changes towards building a better food system. The plan was

primarily created by a team of individuals from a number of organizations, state departments, businesses, and universities who consulted with experts and stakeholders from around the city. As a result of the efforts, the Mayor's Office created a Food Policy Coordinator and inter-agency task force at the request of the City Council. While the plan does not specifically have a vision statement, it proposes that key investments and policy changes recommended will help to "build a better food system our growing city – one that provides healthy, affordable food for all New Yorkers in our growing population, while supporting our local and regional economy and mitigating environmental impacts" (10). The following table shows the plan's food system categories, goals, and related strategies.

Table 5.6 NYC Plan Food System Categories, Goals, & Strategies

FOOD SYSTEM CATEGORIES & GOALS	STRATEGIES
Production: 1. Preserve and increase regional food production 2. Increase urban food production	• Strengthen regional food supply channels • Leverage the city's economic power to support regional producers • Better use existing space for urban food production • Restore food and horticultural knowledge
Processing: 3. Generate growth and employment in the food manufacturing sector 4. Increase regional products processed in and for NYC 5. Reduce the environmental impact associated with food processing in NYC	• Make affordable space available • Provide technical assistance to food manufacturers • Facilitate urban-rural linkages • Help businesses reduce energy consumption
Distribution 6. Improve food distribution in NYC through infrastructure enhancements, technological advances, alternative transportation, and integrated planning	• Expand on the current vision for the Hunts Point Food Distribution Center to maximize its potential • Diversity and improve food transport

Table 5.6 Continued

Consumption 7. Create a healthier food environment 8. Strengthen the safety net of hunger and nutrition programs 9. Improve the nutrition of institutional meals 10. Increase quantity and quality of opportunities for food, nutrition, and cooking knowledge	• Expand fresh food retail in underserved areas of the city • Better support food outlets that provide fresh and healthy foods • Discourage unhealthy food consumption • Improve federal food programs and remove local barriers to enrollment • Expand the capacity of city agencies to cook whole foods for nutritious meals

The plan addresses tracking results in a narrative form but does not establish key food system elements as indicators to track progress. The first recommended step is to establish a food policy council to provide community and industry input, in tandem with the Mayor's Office newly appointed Food Policy Coordinator and inter-agency task force. Additionally, it is noted that the Mayor's Office of Long-Term Planning and Sustainability has taken heed of calls to include food in any updates of the *PlaNYC* comprehensive plan. The next recommended step addresses reporting on city food system data, such as the food the city buys and serves and the impacts of various food-related programs. City Council will then be able to introduce legislation that will help the City better understand the state of the NYC food system, monitor changes, and provide a foundation for future work. This reporting bill will establish metrics at each phase of the food system to determine where city purchased food comes from, whether local processors are benefitting from city programs, the reach and quality of agency meal programs, progress toward eliminating hunger, and the environmental sustainability of the Hunts Point markets (p.75). Reporting on food system data will facilitate measuring "the effectiveness of current efforts and target future initiatives" (p. 75).

In December 2011, one year after the food system plan was published, a follow-up report, "FoodWorks: A Vision to Improve NYC's Food System: One Year Later" was created to review progress made on the goals for agricultural production, processing, distribution, consumption, and post-consumption. The report notes significant progress was made on 31 of the 59 original strategic action proposals. Additionally, a Food Metrics Act (Local Law 52) was passed to establish reporting measurements in the key areas of the city's food system to better assess progress towards the FoodWorks initiatives.

For agricultural production, progress highlights include an increase in the number of farms in New York City through the GrowNYC's New Farmer Development Project; a City Council Community Supported Agriculture (CSA) initiative and 10 more CSAs in NYC through Just Food, a local food system organization; 14 new farmers' markets since 2010 for a total of 123 farmers' markets in NYC; an expansion of EBT and WIC benefits accepted at farmers' markets; a number of new laws and resolutions related to urban farming; a law passed to create an online public data-base of city-owned property; a new law that requires City agencies to set up guidelines for the purchases of locally grown or manufactured foods; and a resolution to allow the City to extend preferential treatment to regional farmers in nearby states as well as local farmers based in New York.

For the processing goal, progress highlights include: the opening of a new kitchen incubator Hot Bread Kitchen (HBK) with the assistance of City Council, which has supported the growth of low-income and minority food entrepreneurs in East Harlem; the first Food Manufacturing Expo organized by City Council and the New York City Economic Development Corporation; a $10 million contribution by City Council to the

Small Manufacturing Industrial Fund to provide renovation of industrial spaces available to food manufacturers; improvements to the Hunts Point Food Distribution Center in collaboration with the Hunts Point Produce Market to improve infrastructure challenges related to efficient food storage and transportation; and funding for a city-wide food distribution study to provide an accurate picture of the current distribution system and serve as a guide in making investments and policy changes to help reduce the costs of distribution, increase access to fresh and healthy food, and diminish the harmful environmental impacts of the current system.

Much progress was made for the consumption goal, including: an expansion of six new grocery stores through the Food Retail Expansion for Health (FRESH), which provides financial and zoning incentives to new or expanding grocery stores in areas with reduced access to fresh food; technical assistance to five new food co-operatives; improvements in farm-fresh produce food options in corner stores through the GrowNYC Fresh Bodegas program; the creation of GROCERYWorks, a food retail workforce development program that provides unemployed workers with training and job placements, from which 67 people graduated; a collaborative effort to strengthen the Child Nutrition Act and pass the Healthy, Hunger-Free Kids Act of 2010, which provided an increase in federal reimbursement for school lunches, increased the number of students eligible for free and reduced school meals, and set improved nutritional standards; and an increase from 175 to 333 schools providing Breakfast in the Classroom.

Lastly, progress made on post-consumption goals includes: a new GrowNYC pilot program that diverted an additional 265,000 pounds of food waste from the waste stream; the authorization of a study to find new ways to expand the citywide composting

system, to be released in 2012; a new local law that will enable New Yorkers to recycle more food-related packaging going into effect in 2012; a new local law that requires home heating use at least 2% biofuel and a newly planned biodiesel processing facility that will make use of grease waste, to open in 2012; a new local law requiring city agencies to create guidelines for reducing packing on the food that they procure; and a new local law that will reduce bottled water consumption and require water fountains with a separate faucet for filling up containers, which will go into effect in 2012.

Vancouver, Canada

In 2013, the City of Vancouver, Canada created *What feeds us: Vancouver Food Strategy* as a direct result of a call to create a coordinated food strategy in the 2010 *Greenest City Action Plan*. Previously in 2003, a mandate was passed to create a food policy council and food policies, but a coordinated food strategy would bring all the policies together under one umbrella directive (City staff, personal communication, May 1, 2015). Additionally, the Vancouver Food Charter adopted in 2007 presented a vision for a food system and the development of a coordinated municipal food policy.

Prior to a municipal directive, Vancouver already had a strong network of constituency groups involved in food – from farmers' markets to urban farmers to grassroots neighborhood-based coalitions – which contributed to the consultation process of the food strategy. The City held broad public events such as informational meetings, storytelling events, and community forums on food, as well as targeted stakeholder group meetings. City staff also engaged with internal departments through an interdepartmental

steering groups that still meets today and is integrally involved with the implementation of the food strategy and its structure (City staff, personal communication, May 1, 2015).

The strategy framework includes the plan-making process and consultation principles, current condition of Vancouver's food system, guiding principles, priority actions areas, goals, actions, implementation, and evaluation and monitoring. There are five guiding principles: community economic development, ecological health, social justice, collaboration and participation, and celebration. The following table shows the strategy's vision, priority action areas, and goals.

Table 5.7 Vancouver Plan Vision, Priority Action Areas, & Goals

VISION: "The City of Vancouver is committed to a just and sustainable food system that contributes to the economic, ecological, and social well-being of our city and region; encourages personal, business, and government food practices that foster local production and protect our natural and human resources; recognizes access to safe, sufficient, culturally appropriate and nutritious food as a basic human right for all Vancouver residents; reflects the dialogue between the community, government, and all sectors of the food system; and celebrates Vancouver's multicultural food traditions."	
PRIORITY ACTION AREAS	GOALS
1. Food production 2. Empowering residents 3. Food access 4. Food processing and distribution 5. Food waste	1. Support food-friendly neighborhoods 2. Empower residents to take action 3. Improve access to healthy, affordable, culturally diverse food for all residents 4. Make food a centerpiece of Vancouver's green economy 5. Advocate for a just and sustainable food system with partners at all levels of government

The strategy's goals are derived from community consultations, the *Greenest City Action Plan* local food goals, principles identified in the Vancouver Food Charter and research on food strategies in other cities. Each goal section also specifies geographical scale for actions: neighborhood, city-wide, region, province, and beyond, and briefly

explains the scope of these actions. The Action section is organized by the four priority action areas and components of the food system: food production, food processing and distribution, food access, and food waste management. Actions include new policies, regulations, or amendments to already existing ones. For the actions, the strategy highlights the integration with each of the five goals. Action areas are organized by definition, how the actions contribute to creating a just and sustainable food system, current Vancouver context, specific actions and timeline (short-term, mid-term, long-term), relevance and integration with food strategy goals. A table of cross-over benefits and alignment with broader City priorities is also included as an appendix. Examples of best practices from Vancouver as well as the U.S. and Canada are also included.

The Implementation section lists specific entities such as local government, community groups, institutions, agencies, businesses, governmental partners, and other stakeholders. City entities include: Greenest City Action Plan Steering Committee, City of Vancouver Food Systems Steering Committee, City of Vancouver Inter-Departmental Technical Teams, Vancouver Food Policy Council, City of Vancouver Food Strategy Implementation Steering Committee. Non-City implementation entities include: Vancouver School Board, Metro Vancouver, Vancouver Coastal Health, B.C. Ministry of Agriculture and Lands, University of British Columbia, and Simon Fraser University.

The Evaluation and Monitoring section is based on existing Greenest City targets, specifically, the overarching target to "increase city and neighbourhood food assets by 50% over 2010 levels by the year 2020." The strategy suggests it is most meaningful for measurement of directional progress, especially for neighborhood scale progress, where data is most challenging to gather. Food assets are defined as "resources, facilities, or

spaces" that are available to residents either at the city-wide or neighborhood scale and are used to support the food system. Food assets include: number of food hubs, number of community kitchens, number of farmers' markets, number of community produce stands, food composting facilities and community composting programs, number of community garden plots/orchards, and number of urban farms. Alongside physical food assets are social assets or community coalitions that contribute to the food environment, such as the Vancouver Food Policy Council, Vancouver Urban Farmers Society, Village Vancouver, Environmental Youth Alliance, and the Vancouver Street Food Association.

City staff noted that key partnerships included community members and organizations involved during the consultation process, as well as governmental partners such as health authorities and preventional ministries. Additionally, every city department was involved. When choosing scale, city staff noted that there are areas where local food policy can affect actions, whether it is with investments, farmers' markets, or community composting facilities, s it is important to show where there is a scale of impact and focus thinking on the different types of impact. Food system literature also indicates, "food systems are nested, so there is an overlap with geographical scale and jurisdiction" (City staff, personal communication, May 1, 2015).

For evaluation and monitoring, city staff explained that selecting indicators and measuring progress around food systems is challenging, and the indicators chosen are a combination of tangible, numerical assets as well as human capital that is difficult to measure; however, as a pragmatic reality, it is important to show directional change and progress, which is possible to show through the increase in the number of food assets over time. City staff also emphasized that "it is important to communicate the value

system around assets and how the assets are being used by the community to advance broader goals of health and well-being," which are hard to capture in a static indicator system, so it is important to count assets to show change but also take the opportunity to tell a story about what the assets mean to communities. For example, having community garden is only good if it is being used and promoting community goals.

Overall, city staff noted that it has been a huge advantage to have a food strategy, but increasingly, it is important to tell the story of "why the food system work in municipalities has value and contributes to broader city goals and systems" (e.g. transportation, housing, community development, land-use planning). It is helpful for other departments to see food as something that enhances their work rather than creating more work for staff. It is better to show what food adds to other systems rather than plan for food in isolation, which is the future of food system planning – "looking at food not as an isolated system but that it is truly meeting its potential when shown to be an integral part of urban systems." It needs to be "re-embedded where it belongs, as the oldest urban preoccupation that still exists" (City staff, personal communication, May 1, 2015).

Edmonton, Canada

The City of Edmonton, Canada created *fresh*: *Edmonton's Food & Urban Agriculture Strategy* in 2012 with the guidance of the Food and Urban Agriculture Advisory Committee comprised of 15 stakeholders and experts in agriculture, food systems, economic, community and land development, and support by project consultants and city staff. The strategy was developed as a way to implement many of the food-related references in Edmonton's principle comprehensive planning document, *The Way*

We Grow, which contains the city's first ever reference to food and agriculture systems. The plan includes sections on the strategy development process, goals, strategic directions and recommendations, enacting strategy, and oversight. The plan identifies key food system elements that shape the strategy framework: food production, processing, storage and distribution, buying and selling, eating and celebration, food waste and recovery, and education and governance. The following table shows Edmonton's food strategy vision, goals, and strategic directions. Additionally, each goal lists several objectives, and links between each strategic direction and the overall goals are also included in the strategy.

Table 5.8 Edmonton Plan Vision, Goals, & Strategic Directions

VISION: "Edmonton has a resilient food and agriculture system that contributes to the local economy and the overall cultural, financial, social, and environmental sustainability of the city."	
GOALS	STRATEGIC DIRECTIONS
1. A stronger more vibrant local economy 2. A healthier, more food secure community 3. More vibrant, attractive, and unique places 4. Less energy emissions and waste 5. Healthier ecosystems	• Establish the Edmonton Food Council • Provide food skill education and information • Expand urban agriculture • Develop local food infrastructure and capacity • Grow local food supply and demand • Enliven the public realm through a diversity of food activities • Treat food waste as a resource • Support urban farmers & ecological approaches to farming • Integrate land for agriculture

Fresh does not include a detailed implementation plan but sets directions for moving forward. Implementation is supposed to occur over time as the "Edmonton Food Council is established, partnerships are formed, research is continued, resources are

allocated, and progress builds towards results." The strategy proposes engaging stakeholders from groups such as the Edmonton Federation of Community Leagues, the Greater Edmonton Alliance, industry associations, neighborhood associations, groups with related interests, media and food writers. The strategy also mentions potential partnerships between the City of Edmonton and the following stakeholders: land developers, large-scale local, regional, national, and international producers, farmers and processors, retailers, the Province of Alberta, the Government of Canada, educational and academic institutions, and non-profit organizations.

A section on the creation of the Edmonton Food Council and its responsibilities is included, such as proposing priorities and work plans to the city, providing advice on food and urban agriculture issues, identifying emerging issues and potential solutions, monitoring and reporting on progress of the strategy, playing a networking and connecting role between the many partners involved with implementing the strategy, facilitation collaboration between city departments and linking the city to community partners, and hosting community forums and other forms of engagement and education on food and urban agriculture topics. In terms of measuring success, the plan mentions the responsibility of the future Edmonton Food Council to identify appropriate measures for each of the strategy's goals and objectives and to report progress against those metrics, and on the strategy's recommendations, to the city council on an annual basis. Examples of possible measures specific to each objective and goals are included in the Appendix of the strategy.

An interview Edmonton city staff involved in creating *fresh* revealed how the need to create a food strategy arose, the process of making the plan, and the impact it has

had on the city thus far (City staff, personal communication, March 6, 2015). In 2008, the city's municipal development plan, *The Way We Grow,* was up for revision, and through holding community engagement sessions, it became clear the topic of food was a big concern. The public demanded that food be included in the future plan, which was "exciting and shocking," and to the credit of city council, an entire chapter in *The Way We Grow* was dedicated to food and urban agriculture. Having food-related policy in the municipal development plan was a huge victory for the community and "no other municipality in Canada had seen such a chain of events." The policy called for the creation of a city-wide food and agriculture strategy, which authorized the hiring of a small team. Once the municipal development plan was approved, this team began the process of creating the strategy (City staff, personal communication, March 6, 2015).

There were multiple challenges and successes during the process. One of the most contested issues was the development of several large areas of prime farmland, as proposed in the approved municipal development plan; however, the public thought the city was taking land from farmers, a contentious topic that dominated public discourse and media for the entirety of 2012. Despite the tension, the heightened political awareness and public debate also served as a catalyst for creating the food and agriculture strategy because the stakes were raised and there was interest, which resulted in the strateg*y* being a far more comprehensive and detailed product in the end. The media exposure gave the opportunity to address many other aspects of food policy.

Key partnerships that helped create the strategy were the Mayor's Office and elected officials, an advisory committee, a facilitator, a planning firm, consultants, stakeholder focus groups, and the Center for Public Involvement at the University. Public

engagement specialists at the Center for Public Involvement helped create citizen panels that were deeper conversations with community members about what a food strategy might include and what food meant to them. Other community engagement strategies for *fresh* included three to four different surveys sent to Edmonton residents and surveys sent to landowners of the three different prime farmland areas. The city also organized a Food in the City conference, inviting everyone to join in on conversations about food with key speakers. Additionally, an active online social media presence (Twitter, blog, website) showed a heightened level of engagement with the city. Lastly, open houses towards the end of the creation of *fresh* gave the city an opportunity to show a final draft of the strategy that would be then taken to city council.

Within the strategy, no specific geographical scale was chosen for the implementation of actions to allow for flexibility in projects. The recommendations vary widely; some are very specific, such as changing zoning laws to allow for backyard chickens and beekeeping, and some are large, like creating a community food hub. This is in part due to the fact that there were so many perspectives and an effort was made to include everyone who might be interested. One advantage of not addressing scale is that people now approach the city with an idea, and they see themselves in the strategy on a certain page. The strategy, as it is, allows for diversity of scale and diversity of types of ideas to surface and allow people to feel supported by the policy since it may name the idea or project. When it comes to implementation, considering scale is important, but it is hard to make scale intentional upfront unless the city has lots of resources. It's recommended to support and enable things already happening in the community, since resources could be a limiting factor for a city. In Edmonton's case, staff capacity guides

implementation, so the approach to partnering on projects operates on two key measures; 1) opportunity, and 2) ability to leverage the opportunity. Something large will need formal partnerships and investment, but it can be "more than enough" to do really small things like allowing bees and chickens; it is a small investment for the city, but for the community, there is symbolic power, relevance, and social dividends.

City staff advised that key partnerships and partners will surface with the opportunities that arise, and when the city sends a message of support, it is "amazing what the community will come up with and bring to the table." Organizations and businesses will then see the benefits of being a part of the effort. However, it is recommended to be inclusive and collaborative with multiple entities, such as economic development organizations, farmers, the food sector (industrial included), food justice advocates and organizations, and food security advocates and organizations. One critique of the strategy is that food security is not addressed in detail, but it has created an opportunity to discuss how the strategy could lead towards stronger food security.

Measuring progress is still an ongoing task for the Edmonton Food Council, which recently struck a new committee for measurement to work on identifying what measures to use and which broad food system indicators are appropriate for the region and to measure over time. City staff noted it is valuable to name broad system indicators but more appropriately, it might be better to take a measure of the impacts of specific projects using both qualitative (e.g. storytelling) and quantitative measures (measuring the impact of changing a zoning law to allow for bees and chickens).

So far, the food strategy has had a significant impact in Edmonton, shaping the conversation around food and the city's identity as being progressive and innovative,

especially in regards to its food system. One of the biggest successes was changing the zoning law to allow for chickens and bees. Anecdotally, the political upheaval that occurred with *fresh* is in the past, and for the most part, people have expressed content that there is a strategy, and it is celebrated and a point of pride. Some entities may still have skepticism about what the City can do; however, working with small projects has proven to be a successful strategy and heightened awareness of food and the ability to engage with the food system (City staff, personal communication, March 6, 2015).

Multnomah County, OR

In December 2010, Oregon's Multnomah County Office of Sustainability created the "Multnomah Food Action Plan: Grow and Thrive 2025." The plan aims to "achieve a local, healthy, equitable, and regionally prosperous food system" through "education, community empowerment, planning integration, policy prioritization, and investment." The Multnomah Food Initiative Steering Committee, along with over 200 community members, organizations, and county staff contributed to the 15-year food action plan. The Portland/Multnomah Food Policy Council played an important role in gathering community input for the plan.

The plan includes a call to action and opportunities for collaboration, ways to use the plan, and a list of ways that the food action plan can benefit other entities. 16 community-identified goals are listed with 60 corresponding organization-based actions. The following tables show the plan's vision for 2025, food system principles, food system categories, and goals.

Table 5.9 Multnomah Co. Vision & Food System Principles

VISION: "thriving regional food system that engages the community in healthy food production, equitable food access, opportunities for collaboration, low environmental impact, living wages and economic vitality for Multnomah County and its people."
FOOD SYSTEM PRINCIPLES
1. We believe all people in our community should have equitable and affordable access to buy or grow healthy, culturally appropriate, sustainable, and locally grown food; 2. We believe food and agriculture are central to the region's economy, and a strong commitment should be made to the protection, growth, and development of these sectors; 3. We believe in promoting and supporting a food system that provides economically sustainable wages; 4. We believe it is important to educate the community on the value of a healthy food system and healthy food products; 5. We believe that success in developing, linking, and strengthening the food system will be achieved through community partnerships and collaboration; 6. We believe food brings us together in celebration of our community and is an important part of our region's culture.

Table 5.10 Multnomah Co. Food System Categories & Goals

FOOD SYSTEM CATEGORIES	GOALS
Local Food	• Protect and enhance the agricultural land base • Support small- and mid-scale farms • Increase food production • Encourage sustainable resource stewardship
Healthy Eating	• Create environments that support health and quality of life • Increase equitable access to healthy, affordable, safe, and culturally appropriate food in underserved neighborhoods • Promote individual and community health by encouraging healthy food choices • Increase awareness of food and nutrition assistance programs
Social Equity	• Address the causes of hunger, food insecurity, and injustice • Increase community resilience • Facilitate equitable community participation and decision-making • Create opportunity and justice for farmers and food system workers
Economic Vitality	• Develop the regional food economy and infrastructure • Promote local and regional food products and producers • Encourage Farm-to-School and institutional purchasing that supports the regional food system • Create local food system jobs

For each food system category, the plan showcases efforts by related entities such as community organizations, faith-based groups, food banks, farmers' markets, schools, and businesses. The plan also suggests individual "food citizen actions for home, work, play, worship, or school" to strengthen the food system. The plan also includes a declaration of support that organizations and individuals can sign and commit to a specific action.

For tracking progress, the plan provides specific indicators for each goal to track progress and includes current 2010 conditions and benchmarks for 2018 and 2025. 28 total indicators are suggested for the 16 goals related to local food, healthy eating, social equity, and economic vitality. A separate note explains that benchmarks and indicators used were selected using availability of data, how regularly the data is updated, and longevity of the data collection criteria. The information is readily available from US Census, USDA Agricultural Census, and Food Environment Atlas online data (with the exception of community garden plots/capital). It is also proposed that "more indicators will be developed for our local food system in order to track progress in achieving their community-prioritized goals" (p. 36).

In 2012, two years after the creation of the plan, the Portland Multnomah Food Policy Council (PMFPC) was dissolved after local government agencies expressed that the council was losing relevancy. In 2002, PMFPC was established to address the region's growing interest in cultivating a sustainable local food system. Along with helping to create the food action plan, council members contributed to achievements such as a healthy corner store initiative, a beginning farmer training program, and changes to

zoning codes to expand agriculture. Although the council had contributed to food policy and advocacy work in a region well-known for its sustainable food systems development, particular obstacles led to the disbandment of the council. City staff noted the council had "outgrown its original purpose" (City staff, personal communication, April 19, 2015). A 2015 thesis report provides insight into the challenges that could have been avoided or overcome. The research explores the broad arena of public participation and the importance of negotiating and clearly articulating the roles and responsibilities of council members, government staff liaisons, and elected officials; regularly evaluating the usefulness of established roles, structures, and processes; and making the changes necessary to maintain the relevance of the council, concluding with lessons learned and recommendations for both citizens and government agencies to helping to foster productive public engagement and to advance local food systems policy (Coplen & Cuneo, 2015). Although the PMFPC no longer exists, there is continued activity and interest in the local food system amongst residents; most recently with cooperative food-buying clubs (City staff, personal communication, April 19, 2015).

Three Key Areas of Interest

An analysis of the five food system plans provides a better understanding of how other cities have approached the creation of food system plans from a variety of perspectives, needs, and catalysts and reflects overarching themes and similar processes that occur in food system planning and plan-making processes. City staff faced similar yet unique challenges in each context but also saw resounding progress through specific policies, programs, and projects, and the plan served as leverage for creating policies to

support and encourage food system activities. Overall, the plans also contributed to the identity of the cities themselves. The tables below summarize the three areas of interest as they are mentioned in the plans; geographic scale of implementation, elements used or proposed as food system indicators to measure success, and entities mentioned in reference to implementation. Geographical scale was primarily city-wide, but Vancouver did mention multiple scales in regards to actions. Food system indicators proposed or used vary across the different plans, with some that are still being developed and others that are supplemented with dynamic, qualitative data that accounts for social capital produced and not just an increase or decrease in numbers. Entities mentioned in reference to plan implementation are a combination of public and private stakeholders, ranging from city departments to local organizations, businesses, and community members. Naming specific entities in the plan was common across all the plans and was found to strengthen the plan and increase accountability to actions. Overall, the three areas of interest appear to be important components of the plans but they vary according to the local context, available resources, and overall goals.

Table 5.11 Mentions of Geographical Scale for Implementation

Plan	Geographic Scale for Implementation
Seattle	Plan is specifically city-wide but mentions county and neighborhood partners, programs, activities, Dept. of Neighborhoods and Neighborhood Farmers Markets
New York City	Plan is city-wide but county and neighborhood partners, programs, activities mentioned

Table 5.11 Continued

Vancouver	Plan is city-wide but specifically refers to multiple spatial scales for actions; scale is defined as neighborhoods, city-wide, or beyond. There is a special emphasis on Neighborhood Food Networks (NFNs),
Edmonton	Plan is city-wide and does not mention scale to leave flexibility in projects and actions
Multnomah Co.	Plan is county-wide

Table 5.12 Food System Indicators in Plans

Plan	Food System Indicators Used or Proposed
Seattle	• % of Seattle residents within one-quarter mile of a healthy food access point • % of Seattle residents who are food secure • Acres of City-owned land used for food production • Value of local food sold at Seattle farmers markets or other direct-to-consumer activities • Value of EBT benefits redeemed at Seattle farmers markets • Acres of farmland preserved through the Landscape Conservation and Local Infrastructure program • Number of businesses increasing availability of healthy food in stores through Healthy Foods Here • % of Seattle's food waste diverted for composting or recycling
New York City	Metrics will be established at each phase of the food system to determine: • Where city-purchased food comes from • Whether local processors are benefitting from city programs • The reach and quality of agency meal programs • Progress towards eliminating hunger • Environmental sustainability of Hunts Points markets

Table 5.12 Continued

Vancouver	The strategy plans to increase city and neighborhood food assets by 50% over 2010 levels by the year 2020 (Greenest City Action Plan targets) • Number of food hubs • Number of community kitchens • Number of farmers markets • Number of community produce stands • Food composting facilities and community composting programs • Number of community garden plots/orchards • Number of urban farms
Edmonton	The strategy recommends that City Council delegate to the future Edmonton Food Council the task to work with partners to identify appropriate measures and report against metrics on an annual basis. However, the following metrics are suggested in the Appendix: • Value added to the local economy ($) • Annual sales of locally produced products ($) • Economic multiplier analysis ($ rate) • Amount of capacity for food processing, storage, and distribution (sq. ft) • Number of businesses using this capacity • Volume of activity in processing storage, distribution facilities (sales $) • Number of jobs generated in local food and agriculture sectors (FTEs) • Number of new local food related businesses (annually) • Percentage of locally produced foods consumed annually in Edmonton • Volume of locally produced foods (Kgs) • Number of different local products produced annually • Number of participants completing food skill programs in Edmonton • Annual per household spending on local food ($) • Number of local food options accessible within walking distance (Km/Min) • Area of natural areas affected by farming (Km^2) • Amount of petrochemical inputs in local food production (Litres) • Value of ecological services provided by local farms ($) • Analysis of ecological footprint of local foods (Tons Co2) • Amount of energy consumed by local food system (Calories?) • Amount of food diverted from waste (Kgs) • Number of participants in local food and agriculture related activities • Number of times information portals related to local food are accessed • Number of visible food related landmarks in Edmonton • Number of neighborhood and community destinations and gathering places related to local food

Table 5.12 Continued

Multnomah Co.	• Acres in agricultural production • Number of farms • Number of farms with direct sales • Average total farm sales, per farm • Number of municipally-operated community garden plots per capita • Number of farms using chemicals • Acres of land enrolled in Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement Programs • Number of full service grocery stores • Fast-food expenditures per capita • Low-income preschool obesity rate • Number of low-income households >1 mi to grocery store • Adult diabetes rate • Percentage of fruit and vegetables v. prepared foods per capita • SNAP participation rate • Percentage of eligible low-income households receiving SNAP • Poverty rate • Median household income • Child poverty rate • Number of SNAP and WIC authorized stores • Number of citizen advisory organizaations for Multnomah County government • Average wage paid to farm laborers • Food manufacturing industry sales • Food and beverage sales • Number of farmers markets • Total farm sales • Number of school districts with farm to school programs (8 in Co.) • Number of food manufacturers • Number of full service restaurants

Table 5.13 Entities Mentioned in Plan Implementation

Plan	Entities Mentioned in Reference to Plan Implementation
Seattle	**City, County, or State**: Seattle Office of Civil Rights, Dept. of Human Services, Dept. of Parks & Recreation, Office of Sustainability and Environment, Office of Mayor, City Council, Dept. of Neighborhoods, Dept. of Transportation, Dept. of Planning & Development, Office of Economic Development, Public Utilities, Public Health (county) **Programs, Organizations, Partners**: SNAP, WIC, Fresh Bucks, P-Patch, Early Childhood Education Assistance Program, Coalition for Safety and Health in Early Learning, Local Hazardous Waste Management program, Landscape Conservation and Local Infrastructure program, Saving Water partnership, Farm to Table, Good Food Bag, Food banks/meal programs, Seattle Foundation, Neighborhood Farmers Market Alliance, Seattle Farms, Trees for Neighborhoods, family childcare providers, farmers markets,

Table 5.13 Continued

New York City	**City, County, State, Federal Entities**: City Council, Dept. of Aging, Housing Authority, Dept. of Education, Mayor's Commission on Economic Opportunity, Dept. of Parks & Recreation, Dept. of Health and Mental Hygiene, Dept. of City Planning, Dept. of Buildings, Economic Development Corporation, Small Business Services Dept., Mayor's Office of Long-Term Planning and Sustainability, Human Resources Administration, Fire Dept., Water Board, Dept. of Sanitation, Watershed Agricultural Council NY State Dept. of Agriculture and Markets, NY State Dept. of Health, NY State Energy Research and Development Authority, NY State Dept. of Education, U.S. Dept. of Agriculture **Programs, Organizations, Partners**: SNAP, WIC, TANF, Fresh Direct, Farmland Protection Program, Greenhorns, Hawthorne Valley Farm, Stone Barns Center for Food & Agriculture, GrowNYC, New Farmer Development project, Just Food, NYC Coalition Against Hunger, Green Thumb program, NY & Brooklyn botanical gardens, Green Guerrillas, Garden to Café, Added Value, NY Horticultural Society, Industrial Business Zones, Greenpoint Manufacturing and Design Center, Hot Bread Kitchen, FRESH program, New Construction Program, Existing Facilities Program, Private Fleet Program, Hunts Point Distribution Center (and Market), markets, Healthy Bucks Program, Green Cart Program, Hope Program, GroceryWorks, Columbia University, City University New York, parks, recreation centers, community organizations, faith-based organizations, schools, Food Bank, NYC Cookshop Program, Cornell Cooperative Extension, Lower East Side Ecology Center
Vancouver	**City, County, State, Federal Entities**: Greenest City Action Plan Steering Committee, City Food Systems Steering Committee, City Inter-Departmental Technical Teams, Vancouver Food Policy Council, City Food Strategy Implementation Steering Committee, Vancouver Economic Commission, Vancouver Coastal Health, B.C. Ministry of Agriculture and Lands **Programs, Organizations, Partners:** Vancouver School Board, Metro Vancouver, Neighborhood food networks, Neighborhood Houses, Street Food Vending Program, community gardens, Vancouver Foundation, Urban Farming Society, Green Streets Program, local bee clubs, childcare centers, Fresh Choice Kitchens, Kitchen Tables, Community Center Associations, Food Bank, Quest, faith-based groups, Food scraps collection program, neighborhood food networks, Vancouver Farmers Society, Vancouver Street Food Association, Village Vancouver, Environmental Youth Alliance, Business Improvement Associations, gardens, farmers' markets, urban farms, University of British Columbia, Simon Fraser University
Edmonton	**City, County, State, Federal Entities**: City of Edmonton, City Council, Food and Urban Agriculture Advisory Committee, Greater Edmonton Alliance, Alberta Netherlands Trade Office, Edmonton Federation of Community Leagues, Ministry of Tourism, Province of Alberta, the Government of Canada **Programs, Organizations, Partners:** Angus Watt Advisory Group, Sustainable Food Edmonton, Agriculture and Agri-Food Canada, Food Processing Development Center, Kuhlmann's Market Gardens, Walton Development and Management, Toma & Bouma Management Consultants, Live Local and Blue Pear Restaurant, Horse Hill Community League, Faculty of Extension, University of Alberta, Growing Food Security in Alberta, Northlands, NAIT, non-profits, Community Food Centres Canada, farmers markets, community gardens, restaurants, street vendors, grocery stores, urban farmers, land trust, Urban Development Institute, neighborhood associations, citizens, media and food writers, land developers, large-scale/local/national/international producers, farmers and processors, retailers, educational and academic institutions

Table 5.13 Continued

Multnomah Co.	**City, County, State, Federal Entities**: Office of Sustainability, Portland/Multnomah Food Policy Council, City of Portland, Multnomah County, Multnomah Food Initiative Steering Committee, East Multnomah Conservation District **Programs, Organizations, Partners:** Friends of Family Farmers, Oregon Tilth, Growing Gardens, Burgerville, Portland Farmers' Markets, Portland Yard Sahre, iFarm Oregon, community gardens, farmers markets, Ecotrust Food and Farms, Farm to School, FoodHub, Portland Public Schools, Oregon Physicians for Social Responsibility, Oregon Health Food in Health Care Project, schools, convenience stores, faith-based centers, workplaces, neighborhood retail grocers, restaurants, farms, food banks, farm stands, child and senior food meal programs, CSAs, Ecumenical Ministries of Oregon, Interfaith Food and Farms Partnership, Montavilla Farmers Market, Everybody Eats Program, Oregon Food Bank, Learning Gardens, Farmworker Housing Development Corporation, 47th Ave. Farm, Bright Neighbor, CNG, Cogan Owens Cogan, LLC, Community Food Security Coalition, Hacienda Community Development, Loaves and Fishes, Metro, Native American Youth and Families Center, New Seasons Market, Oregon Food Bank, Portland Permaculture Guild, SNAP, Portland Fruit Tree Project, New Seasons Market, Whole Foods Market, Portland State University Institute of Metropolitan Studies, ReCode Oregon, The Dirt, Transition PDX, Upstream Public Health, Village Gardens Janus Youth Programs

Table 5.14 Common Entities for Implementation Across Plans

Common Entities Mentioned in reference to Implementation Across Five Plans
• City, County, and State entities • Community organizations • Neighborhood groups/associations • Faith groups • Farms and community gardens • Farmers' Markets • Universities and academic institutions • Food-related businesses and restaurants

CHAPTER 6: Discussion, Recommendations, and Conclusion

As shown through the overview and analysis of the five food system plans, there are multiple ways to create a food action plan or strategy. Obstacles that are unique to each context can occur; however, there is an opportunity to learn from the structures of these guiding documents and carry out the vision for Austin's food system. In creating recommendations for general plan elements along with the three key areas of interest for Austin, this report will provide opportunities for continued discussion on next steps in creating a food system plan for Austin. Best practices for certain plan elements may vary according to each context, but the five plans, interviews with planners and policy advisors, and existing research on food system plans from multiple fields will prove useful for better understanding the plan-making process, output, and impact. With a plan in place, food system policies and actions mentioned in *Imagine Austin*, as well as future community food goals, will have a method of implementation. Overall, successful food system planning involves creating a plan that is based on community goals and input, names entities, tracks and measures progress, and directly relates to the city's comprehensive plan framework in order to facilitate long-term, lasting changes.

Recommendation #1: Include General Plan Elements

There are several key components to the framework of a plan or strategy that all of the reviewed plans have in common, and each serves an important purpose for the general audience and for those involved in the plan's creation. By including these in the plan, the City can show why the food system is important to plan for, the state of Austin's food system, transparency in the engagement and consultation process, food system

categories of interest to Austin, and ultimately, how a collaborative and inclusive effort with multiple City and community partners will lead to the implementation of community-based goals and actions.

Table 6.1 Key Elements to Include in Plan

KEY ELEMENTS TO INCLUDE:
• Background for food system context • Plan-making process (includes community engagement) • Goals and values • Strategies and actions • Implementation or next steps • Tracking and measuring progress • Research questions • Recommendations

Recommendation #2: Create an Interdepartmental Team or Steering Committee

Create an interdepartmental food team or a steering committee comprised of staff from multiple city departments to guide the plan creation and implementation. Collaborating across departments will build buy-in for the plan, forge allies, and allow for the integration of food in other city initiatives and operations. Food affects all other systems (e.g. transportation, housing, land use, environment, health), but it is necessary to show how addressing food can enhance or support the work already being done in their department rather than create additional work that is not advancing collaborative goals.

Recommendation #3: Involve Diverse Entities in Plan-making Process and Mention Specific Entities in Plan Implementation

All five of the food system plans name key partnerships or entities that were involved in the plan-making process through professional consultation, community engagement, stakeholder input, or action implementation. Include diverse entities in the process of creating the plan and mention key partners for implementation of actions or projects. The following table shows potential entities to include.

Table 6.2 Key Entities to Mention in Plan

COMMON ENTITIES INCLUDED	LESS COMMON ENTITIES INCLUDED
• City departments • Public agencies • Regional entities • Food businesses and restaurants • Universities and schools • Faith groups • Farmers' markets • Neighborhood groups • Community gardens • Food banks • Food justice organizations • Community members	• Conventional food sector • Developers • Transportation authorities • Childcare facilities • Senior living centers • Botanical gardens • State Cooperative Extension • Distribution Centers • Youth organizations

Mentioning specific entities in reference to collaboration or implementation will strengthen accountability to implementing actions within the plan. Including actions for a wide variety of community members is also important: actions for farmers, school and community garden leaders, food-related organizations, business owners, places of worship, conventional food industry entities, culture & arts organizations, other city departments, and local residents will provide various outlets for being involved in

strengthening the local food system. Include opportunities for all members of the food sector, both local and conventional, from not only within the urban core but also the region, to get involved in the conversation about strengthening the community food system and finding ways to collaborate on specific projects. Partnering with a diverse group of stakeholders is ideal for building buy-in and creating partnerships. Naming specific entities involved in food system efforts within the plan sections that will be responsible for or involved in certain policies, actions, or investments will strengthen the plan in the long-term.

Recommendation #4: Allow for Multiple Geographical Scales for Actions

There is not one specific geographical scale that is indicated to be more successful or appropriate. Out of the five plans, only three mention neighborhood-specific strategies, actions, or recommendations. The Vancouver food strategy is the only plan that indicates at which scale actions are to be implemented: neighborhood, city, or beyond, and city staff saw value in specifying where action can be taken. The New York City plan suggests partnering with organizations and entities in different areas of the city. The Seattle plan mentions working closely with the Department of Neighborhoods. The Edmonton food strategy did not specifically address scale to allow for flexibility of projects. The City of Austin should also leave room for flexibility of actions at multiple scales, whether at the neighborhood, city, or regional scale, but it would be helpful to also suggest specific actions that can be taken at each scale so that both residents and the City can prioritize where their time and energy can be invested.

Recommendation #5: Focus on Specific Projects Through a Lens of Social Equity

The City should focus on a few key projects, especially those that address social equity. As in the cases of Seattle and Edmonton, specific projects and policies led to widespread change in the food system. In Seattle, the Fresh Bucks program for neighborhood farmers' markets and the Farm to Table program uses city dollars. These programs were formed to meet community goals and priorities to increase access to healthy food in their neighborhoods and improve social equity. In Edmonton, changing zoning laws to allow for backyard bees and chickens were seen as major successes. In each case, the City dedicated time and money. It is worthwhile for the City of Austin to consider focusing time, energy, and funds on specific projects that will meet the goals of community members in diverse contexts, especially in marginalized, underserved communities. Engaging the community and key stakeholders can help the City better understand community priorities and also focus on the initiatives and projects that will improve social equity.

Recommendation #6: Choose Measurable and Meaningful Food System Indicators

There are certain food system components that are more advisable to track and use as indicators, which Austin could include in a future plan. The City should research the utility of using indicators as a way to measure progress and directional change while also allowing room for conveying the value of the indicator for community goals. Knowing current conditions is an important step. Some indicators have already been created through the "State of the Food System" report recently completed by the Office of Sustainability. Existing Austin data is currently divided into four sections: growing

food, selling food, eating food, and food recovery. It would also be advisable to create a new section, "connecting to food," to include metrics for knowledge and awareness.

Measuring progress should be based on indicators that can realistically be tracked with appropriate benchmarks. Furthermore, allowing for qualitative data on the greater social capital produced from the indicators will relate the value of the indicator to greater food system goals and convey a more comprehensive approach to metrics for the Austin food system. Creating room for narratives and qualitative data is important for measuring progress and for capturing the overall impact of the plan. The suggested indicators in Table 6.3 are a selection from Austin's food sector data combined with other potential indicators mentioned in the five food system plans and literature (shown in red).

Table 6.3 Potential Austin Food System Categories and Indicators

Food System Categories	Food System Indicators
Growing Food	• % Locally produced food • % Farmland • Average annual income of farm labor • Number of urban farms • Number of community gardens • Schools with a garden • Acres of city-owned land used for food production
Selling food	• Farm direct sales • Number of farmers' markets • Number of food retailers • Number of full-service stores with food • Number of food pantries that offer fresh produce • Value of EBT benefits redeemed at farmers' markets • Value of local food sold at Austin farmers' markets • Number of jobs generated in local food and agriculture sectors (FTEs) • Number of farm employees • Number of CSA shares sold • Number of commercial kitchens • Number of food retailers selling some local products or produce
Eating Food	• % Population that is food insecure • % Children who are food insecure • % Residents living more than 1 mile from a grocery store • Number of zip codes lacking a full-service grocery store • % Obesity rate • % Diabetes rate • % People that meet the RDA of F&V • Number of low-income households >1 mi to grocery store • Number of schools with Farm to School program
Food Recovery	• Number of pounds of food wasted annually • Number of composting classes offered • Number of households with curbside composting (city and private providers) • Number of tons of organic material (from food waste) diverted from landfill • Number of restaurants with pick-up and estimated weight of food waste picked up for composting • Food composting facilities and community composting programs
Connecting to Food	• Number of times information portals related to local food are accessed (SUACG, SFPB) • Number of community destination and gathering places related to food • Number of visible landmarks or icons related to food • Number of residents who attend City of Austin food events

Future Research Questions

A number of research questions remain as a result of this report and should be further explored in the Austin context. Exploring these questions will assist the City in future food-related projects and planning.

- What are best practices for choosing indicators to measure progress?
- How can geographical scale be addressed in food plans?
- What are best practices for neighborhood food planning or neighborhood-scale actions and policies?
- What opportunities exist for GIS analysis of the local food system?
- What is the perception of Austin residents' about the local food system?
- What types of public-private partnerships are successful for food system planning?
- What entities are currently involved in food planning in Austin and who needs to be included at the table?
- What types of funding possibilities exist through the City for food projects?
- How can the City use a social equity lens for food projects in Austin?
- How can food system plans or neighborhood planning projects be evaluated and updated over time?
- What are ways to overcome the academic framework that may prevent authentic community engagement, and how can academia best play a role?
- What are barriers to community engagement around food for municipalities?
- How can we ensure authentic, meaningful, and diverse participation in food system planning?

Conclusion

Austin is a rapidly growing city that has experienced a surge of interest in all aspects of food voiced by farmers, school and community gardeners, local restaurants, elected officials, and neighbors. Food affects almost every aspect of our lives, and local residents have posed the question: how can the City of Austin answer our concerns? *Imagine Austin* magnifies the community voices that have expressed their support for the City to address issues ranging from access to healthy food to establishing urban farms. While there is no exact formula for strengthening Austin's food system, there is now, more than ever, an opportunity for creativity and collaboration in creating a food system plan rooted in community priorities and representative of diverse contexts that will guide the City towards a stronger community food system.

By creating a food system plan, the City will be able to assess its current food system; listen to community voices and better understand priorities, create supporting policies, strategies, and actions; and establish a means of tracking and measuring progress. There is still a need for understanding the community's vision for a food system and creating policies to support that vision. Resoundingly, city staff interviewed emphasized that one of the most important impacts of plans was having the leverage to create policy. While creating food system plans is a fairly new endeavor, existing examples, literature, experts, and local knowledge exist. Continued research will help the City to explore how it should best invest its time and funds, create partnerships to further the work, and address social equity. Pieces of the groundwork have been laid; the time is now ripe for the City to lead efforts in planning for a strong community food system towards a vibrant, livable, connected Austin.

Appendix A

Table AI City of Austin Food System Report Metrics 2014

Food System Report Category	Value
Growing Food (Commercial)	
Farmland lost each day	7 acres
% Farmland	25% Over 11 years
Milk Production	Zero
Locally Produced Food	Less than 1%
Average Farmer Age	62
Farm labor average annual income	$11,000/ Annual
Growing Food (Community)	
Number of urban farms:	23
Number of community gardens:	52
Available plots in community gardens:	0
Schools with a food garden:	130
AISD schools with a food garden:	73%
AISD schools with 4H program:	33%
Households with chickens:	3,100 (1% of Austin)
Number of chickens in Austin:	24,000

Table AI Continued

Selling Food	
Total economic impact of food:	$4.1B (.45% of GDP in Austin MSA)
Food manufacturing:	$737M
Food distribution:	$331M
Grocery sales:	$449M
Farm direct sales:	$1.3M
Sales tax revenue:	$63M
Number of Farmers Markets:	8
Number of regional Farmers Markets:	38
Number of food business incubators:	8
Number of food retailers:	325
Number of full-service stores with food:	85
Number of food pantries:	93
Number of discount stores with food:	38
Selling Food (Food Retail)	
Number of food trailers	Approx. 1,500
Number of restaurants	Approx. 6,000

Table AI Continued

Eating Food	
Population that is food insecure:	18.10%
Children who are food insecure:	25% (58,900)
Eligible residents who receive SNAP:	57%
Economic impact if the 43% of eligible SNAP recipients received benefits	$303,054,609
Eligible for free and reduced lunches:	63% (two-thirds of all students)
Residents living more than 1 mile from a grocery store:	8.70%
Zip Codes lacking a full-service grocery store	Five
Food insecurity costs to Texas business per year:	$9B
Obesity rate:	25.50%
Diabetes rate:	7.40%
Meet the RDA of fruits & vegetables:	30%
Food Recovery	
Food wasted annually:	194,527,260 pounds
Value of wasted food:	$208,144,169
Amount of food wasted:	25%
Children who are food insecure:	25%
Households with curbside composting:	14,322
Organic materials diverted:	1,837 tons
ARR composting classes offered:	50

Source: City of Austin, Office of Sustainability, Food System Report Metrics 2014

Appendix B

Interview Questions for City Staff

Edmonton

1. How was the strategy-making process initiated?

2. What were challenges and successes in creating the strategy?

3. What were key partnerships or entities involved in creating the strategy, and why?

4. How was the appropriate geographical scale for actions chosen?

5. What are challenges associated with different scales?

6. What are some key partnerships or entities related to carrying out specific actions?

7. Has the Edmonton Food Council identified appropriate measures for each of the strategy's goal and objectives for reporting progress?

8. What impact has the food strategy had thus far?

Seattle

1. How was the action plan-making process initiated?

2. What were challenges and successes in creating the plan?

3. What were key partnerships or entities involved in creating the plan, and why?

4. How was the appropriate geographical scale for actions chosen (neighborhood, city-wide, etc.)?

5. What are challenges associated with different geographical scales?

6. What are some key partnerships or entities engaged in carrying out specific actions?

7. For measuring progress, how were the indicators chosen?

8. What impact has the food action plan had thus far?

Vancouver

1. How was the strategy-making process initiated?

2. What were challenges and successes in creating the strategy?

3. What were key partnerships or entities involved in creating the strategy, and why?

4. How was the appropriate geographical scale for actions chosen (neighborhood, region, etc.)?

5. What are challenges associated with different scales?

6. What are some key partnerships or entities related to carrying out specific actions?

7. For evaluation and monitoring, how were the food assets chosen (related to the Greenest City Action Plan)?

8. What impact has the food strategy had thus far?

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