

Table of Contents

1	Executive Summary
2	Introduction
3	Key Principles of a Sustainable Food System
4	A Growing Role for Municipalities
5	Food and The City of Calgary
6	What is Happening in Calgary's Food System?
8	Measuring Progress
9	Principles and Metrics of Calgary's Food System
10	Key Principle – Local
12	Key Principle – Accessible
14	Key Principle – Secure Supply
16	Key Principle – Environmentally Sustainable
18	Key Principle – Healthy
20	Key Principle – Community Economic Development
22	Conclusions
22	Key Findings
22	→ 1. The food system is an important economic driver
22	→ 2. The food system promotes resilient communities
23	→ 3. The food system is integral to healthy citizens
23	Next Steps
24	Glossary
25	Works Cited
27	Appendix I: Leading Food Policy Work from Across Canada
28	Appendix II: City of Calgary Business Units and Food Policy
30	Appendix III: Calgary FATSI Action Plan Status Report

ACKNOWLEDGEMENTS

This report is a collaboration of The City of Calgary's Office of Sustainability, Renée MacKillop (Highland Consulting), and the support of the Calgary EATS! network.



Executive Summary

Municipalities across North America are coming to truly understand the value of local food systems. Currently, 64 municipalities in Canada and 200 across North America (MacRae & Donahue, 2013) are undertaking food policy work for three major reasons: (1) municipalities are impacted by the consequences of a failing food system (i.e. pollution, diet-related health problems, access and affordability); (2) food systems serve as a multifunctional strategy for achieving broader municipal goals; and (3) food systems provide significant economic development opportunities, creating jobs in food production through to waste recovery.

Over 360 organizations and 1,400 Calgarians contributed to the completion of the Calgary EATS! Food System Assessment and Action Plan, and it was approved by Calgary City Council in 2012. City Council directed City of Calgary Corporate Administration to return with a progress and status report no later than December 2014. This report follows up on that direction.

Key findings indicate that the local food system is:

- 1. An important economic driver,
- 2. Vital to a strong community, and
- 3. Integral to the health of citizens.

The economic importance of food in Calgary has increased in recent years. The average family of four in Alberta spends \$8,414 (Statistics Canada, 2012) on food each year, and food industry jobs¹ in Calgary are expected to increase by 19 per cent from 2010 to 67,573 jobs in 2020 (Calgary Economic Development, 2012). Food manufacturing is also the largest manufacturing subsector in Calgary (Calgary Economic Development, 2009). Food is not only a basic human need, it also represents community and a connection to places, culture, jobs and health. In Calgary, activities of the local food system are directly contributing to City strategies such as the Urban Forestry Strategic Plan, the Waste Diversion Strategy and the Strong Neighbourhoods Initiative. Local food initiatives build community resilience by bringing people together at farmers' markets, community gardens and through food skills programs. However, concerns about access to affordable, healthy food remain. Close to 130,000 Calgarians accessed the Calgary Food Bank in 2013, 42 per cent of whom were children. At the same time, obesity, diabetes, and cardio-vascular disease remain a concern for a significant portion of the population. Adding to these concerns is the fact that 40 per cent, or \$27 billion, worth of food in Canada is wasted each year (CBC News: Canada, 2012). Therefore, it is necessary to both celebrate our successes and to continue



Photo courtesy of Leaf Ninjas

to grow and support the local food system in order to give every Calgarian access to local, healthy and environmentally sustainable food.

Many food policy initiatives have a common path: starting with a community food assessment, building the food system network, identifying projects and educational events, and then creating a Food Charter or Municipal Strategy and Action Plan (MacRae & Donahue, 2013). Calgary has made great strides along this path, and, in order to maintain momentum, the Calgary EATS! initiative would benefit from greater municipal support as well as a regular reporting cycle to City Council. This would ensure progress is made towards achieving the 2012 Calgary EATS! Action Plan as well as effective monitoring and reporting of progress.

¹ Includes job functions such as: farmers and farm labour, meat processors, grocery store clerks, food service providers, food counter attendants, bar and restaurant workers, and dieticians and nutritionists, among many others.

Introduction

Driven by growing citizen demand, community awareness, and direction from The City of Calgary's City Council, the Calgary EATS! Food System Assessment and Action Plan was completed and approved in 2012. The Calgary EATS! initiative is a "City-led, community-owned" partnership with a vision to create a sustainable and resilient food system for the Calgary region so that every Calgarian has access to local, healthy and environmentally friendly food.

Currently, Calgary EATS! refers to both the Food Assessment and Action Plan and an active Stewardship Group. The Action Plan evaluated the current food system, examined a range of food issues facing our city, identified barriers and existing assets within it, and outlined recommendations for building a more sustainable and resilient food system. The City of Calgary's Office of Sustainability acts as The City partner within the Calgary EATS! Stewardship Group, which is comprised of individuals from across Calgary's food system, ranging from farmers to waste recovery specialists and small business owners. The Stewardship Group is catalyzing action towards the Calgary EATS! principles and vision through measuring progress, networking and collaboration, and community engagement - such as hosting the annual Calgary EATS! event.

The 2012 Calgary EATS! Food System Assessment and Action Plan was guided by the following six food-related targets from the imagine CALGARY Long Range Urban Sustainability Plan (2006):

- 1. By 2036, Calgarians support local food.
- 2. By 2036, Calgary maintains access to reliable and quality food sources.
- 3. By 2036, the consumption of urban and regionally produced food by Calgarians increases to 30 per cent.
- 4. By 2036, 100 per cent of Calgary's food supply derives from sources that practice sustainable food production.
- 5. By 2010, 100 per cent of Calgarians have access to nutritious foods.
- 6. By 2036, sustainable urban food production increases to five per cent.

City Council directed City of Calgary Corporate Administration to return with a progress and status report on Calgary EATS! no later than December 2014. This report follows up on that direction.



Key Principles of a Sustainable Food System

The **food system**² incorporates a holistic approach that involves all aspects from production, processing, and distribution, to consumption, disposal and diversion of food. Appreciating the complexity of this system, Calgary EATS! takes a **systems approach** to reach its vision. Actions by one group in the system affect other groups, as well as impacting the environment, the economy, the health of the population and, ultimately, consumers. For this reason, Calgary EATS! considers six key principles that constitute a sustainable food system:

Principle	Definition
Local	Products made, baked, grown, processed and sold in Alberta are supported, and balanced in a context of national and international markets.
Accessible	All people, at all times, have physical, social and economic access to sufficient, safe, healthy and nutritious food to meet their dietary needs and food preferences for an active and healthy life.
Secure Supply	There is a consistent supply of sufficient, safe, healthy and nutritious food that is not vulnerable to fluctuations such as high fuel prices and natural disasters.
Environmentally Sustainable	The Calgary food system ensures the protection of air, land and water, critical for achieving healthy ecosystems by minimizing greenhouse gas emissions, potable water use and waste and maximizing efficient use of land, air quality, water quality and biodiversity.
Health	Food and beverages listed in Eating Well with Canada's Food Guide, which emphasizes vegetables, fruits, whole grains, legumes, nuts, seeds, dairy, meats, fish and poultry. These foods are prepared and served in a way that supports national and provincial recommendations for sugar, sodium and fat.
Community Economic Development	The food system supports community development and action taken locally to create economic opportunities in the community on a sustainable and inclusive basis.

² For definitions of bolded words throughout the report refer to the glossary on page 24.

A Growing Role for Municipalities



Municipalities and regional districts have become key players in the Canadian food system. Over 60 local and regional municipalities across eight different provinces in Canada are currently engaged in food policy, using a mix of municipal policies, programs and civil-society interventions (MacRae & Donahue, 2013).

Municipalities are taking on food policy work for three reasons: (1) municipalities are impacted by the consequences of a failing food system (i.e. pollution, diet-related health problems, access and affordability); (2) food systems are a multifunctional strategy for achieving broader municipal goals; and (3) food systems provide a significant economic development opportunity, creating jobs in food production through to waste recovery.

Considering the implications food has on individual health, community ties and cultural expression as well as our environment, food can be both the problem and the solution. Currently, 16 per cent of Calgarians suffer from obesity while nearly 130,000 Calgarians accessed the Food Bank in 2013, 42 per cent of whom were children. The environmental impact of the food system, from production and processing to consumption, is also significant: 40 per cent of all food in Canada is wasted from farm to plate, costing the economy \$27 billion and releasing 119 million tonnes of green house gas emissions each year (CBC News: Canada, 2012).

Conversely, food policy work is becoming a municipal priority because it is a tangible way to achieve multiple city goals. Local food activities like community gardens and farmers' markets target social and recreation goals - they provide opportunities for people to connect and build social relationships, help newcomers integrate, provide access to healthy and affordable food, and create opportunities for active living. Food policy work also offers accessible economic development opportunities for small businesses, and encourages environmentally sustainable living. Broadly speaking, an active local food system is increasingly part of what is considered a vibrant and resilient community.

For examples of other Canadian cities involved in food work, please see Appendix I.

"Food is central to a well functioning municipality. Food is not only about health, nutrition, and food safety but also food security, affordability and access. Food and its production, supply and consumption affect water use, waste management, carbon footprints, culture, tourism, transportation, planning, economic development & health promotion. The food sector employs 1 in 8 Canadians full time and seasonally."

~ MACRAE & DONAHUE

FOOD AND THE CITY OF CALGARY

By its very nature, strengthening the food system contributes to multiple social, economic, and environmental goals across The City of Calgary. It aligns with The City's Triple Bottom Line Policy and has the potential to strengthen the ongoing work of a variety of City of Calgary departments, business units, and policies.

Examples include:

- Planning, Development & Assessment: The Municipal Development Plan and the Calgary Transportation Plan jointly aim to establish complete communities with mobility options that allow Calgarians to meet their daily needs (i.e. food) efficiently right where they work and live.
- Community & Neighbourhood Services places Community Social Workers (CSWs) in targeted communities through both the Strong neighbourhoods Initiative and the Communities of Focus to increase social inclusion and build strong neighbourhoods. CSWs support residents in the creation of community gardens, local farmers' markets, and in the provision of breakfast clubs and lunch programs.
 - o **Family Community & Support Services** Provides funding to programs aimed at increasing social inclusion for vulnerable Calgarians, including programs that increase economic self-sufficiency and food security.
- Waste & Recycling Services plan to launch a city-wide Green Cart program (food and yard waste) to 310,000 single family homes starting in 2017. This will coincide with the opening of a City-owned residential composting facility and will be followed by a ban on organic material going into City-owned landfills in 2019. These initiatives will divert up to 1/4 of Calgary's overall waste to landfills.
- Environmental & Safety Management manages Calgary's eco-footprint calculator which includes food choices when calculating Calgarians' overall ecological footprint. By choosing local, seasonal, and primarily vegetarian food, Calgarians can reduce their overall ecological footprint.

For a more comprehensive description of The City of Calgary departments that are affected by food policy work, please see Appendix II.



Figure 1. The Food System and Selected City Policies

What is Happening in Calgary's Food System?

Municipalities across North America are coming to truly understand the value of local food systems, and the Calgary community is a leader amongst them. The City of Calgary has recently been identified as a Municipal Food Policy Entrepreneur in a cross-Canada report (MacRae & Donahue, 2013); however, the majority of food initiatives in recent years, from urban agriculture to backyard beekeeping to food waste recovery, are driven by the community. The Calgary community is currently responsible for the progress we have made towards the achievement of the 2012 Calgary EATS! Action Plan.

Highlights of the many exciting things happening in Calgary include the exponential growth of community gardens. Starting with only four in 2009, there are now over 200 public and private gardens. The Calgary Horticultural Society is helping individuals find or start a garden in their community, and REAP Business Association is coordinating the planting of 150 fruit trees that have been donated by local businesses to establish community orchards.

Rooftop gardens can be found at The Mustard Seed, The City of Calgary Municipal Building, and on restaurants and hotels, such as downtownfood, Catch Restaurant and Oyster Bar, and the Hyatt Regency. These gardens are also abuzz with urban beehives, managed by Apiaries and Bees for Communities (A.B.C), a local initiative for pollination stewardship. Since 2010, A.B.C has trained 236 Calgarians in hobby beekeeping, and has brought over 400 hives into the city. The City of Calgary has kept up with the trend, hosting two beehives in rooftop gardens of its Municipal Building.

Restaurants like Ox and Angela, River Café, Rouge Restaurant, and CHARCUT are not only sourcing from local growers they are also growing their own gardens; a combination that is creating a culinary scene in Calgary that is receiving not only local, but national and international attention (Smith, 2014). Leaders in Environmentally Accountable Foodservice (LEAF) have certified 22 restaurants in Calgary (LEAF: Leaders in Environmentally Accountable Foodservice, 2014), and food waste recovery businesses, like DiG (Doing it Green), Green Events Services, PEL Recycling and Hop Compost, are closing the loop by composting leftover food.

Urban farmers are employing innovative methods – such as permaculture, aquaponics (a combination of food hydroponics and fish aquaculture) and small plot intensive ("SPIN") farming: growing food on borrowed pieces of land, often donated backyards - to increase the yield from small plots of urban land. YYC Growers and Distributors is a collaboration of twelve urban farms that use farmers' markets and community supported agriculture to get their produce to market. Home delivery services, like Green Earth Organics and Yuba, are also increasing the accessibility of local food.



Photos courtesy of Calgary Horticultural Society

Photo courtesy of City Palate







Photo courtesy of Calgary Horticultural Society

Photo Courtesy of Apiaries and Bees for Communities

Photo Courtesy of the Naaco Truck

Grow Calgary (an 11-acre urban farm) and Calgary Urban Harvest (a fruit-recovery project) are both volunteer initiatives that provide fresh, locally grown fruits and vegetables to the Calgary Food Bank. Community food skills programs, such as the Hillhurst Sunnyside Community Food Program and Calgary Urban Project Society as well as social enterprises like PreServe Foodskills, are teaching people how to come together in the kitchen to prepare and preserve food.

These are only a few of the many local food initiatives happening in Calgary that are driving progress towards the Calgary EATS! Action Plan. Currently, The City of Calgary is falling behind in its commitment to the community and could strengthen its support by proactively enabling food initiatives in and around the city (see Appendix III for Calgary EATS Action Plan). By supporting the local food system, The City will enable opportunities for enhancing local economic activity, building resilient communities, and promoting healthy living.



Photo courtesy of Karen Anderson



Photo courtesy of Hillhurst Sunnyside Farmers' Market

"The local food system is making a positive impact in connecting people to their community through Farmers' Markets and CSAs, as well as a spring-up of Community Gardens. Projects that connect home-grown food with Calgary Food Banks are additionally making important changes. It is also positively fusing cultures, as is the case with market vendors who take Albertan ingredients and cook or prepare them in ethnic styles (ie. Naaco food truck). Programs like Parkdale Community's workshop series or Growing Gardeners help teach knowledge, and the success of the first University of Calgary Farmers' Market is evidence that younger people are excited about having access to healthy food that is affordable or that they can grow themselves."

- Calgary EATS! Survey

SAIT Urban Ag and Innovation Fund

Story courtesy of REAP Business Alliance

A new research area developing at SAIT Polytechnic's Applied Research and Innovation Services department is Culinary and Urban Agriculture. This new research opportunity builds on past culinary projects undertaken at ARIS as either student projects or one-off research projects with the School of Hospitality and Tourism. Thus far, SAIT-based students and researchers have engaged in the development of veggie chips, rooftop honey, gluten-free recipes, and micro-green production in the bubble greenhouse in SAIT's on-campus garden. Culinary and Urban Agriculture researchers will tap into today's culinary trends; SPIN (small plot intensive) farming, inner-city beekeeping, rooftop greenhouse food production by restaurants, and the testing/development of innovative growing and harvesting technologies. Researchers are also working to innovatively enhance the use of Alberta's bountiful local produce by developing value-added products, unique recipes and process optimization.



Story and photo courtesy of Aja Horsley



MEASURING PROGRESS

Metrics have been developed to measure Calgary's progress based on the six key principles of a sustainable and resilient food system. The principles, established by the Calgary EATS! Food System Assessment and Action Plan (2012) are: local, accessible, secure supply, environmentally sustainable, healthy, and community economic development.

To provide a comprehensive understanding of the local food system, the full suite of metrics must be simultaneously taken into consideration. Any one metric in isolation cannot accurately reflect the food system or our progress towards increased sustainability. This report contains both defined indicators as well as proposed metrics. The proposed metrics currently lack sufficient information to be reported on; however they cover important areas for which it will be important to gather information on in order to provide a more holistic understanding of Calgary's food system. The set of metrics was developed to provide a comprehensive picture of the current state and will act as a means of furthering the development of the principles and vision outlined in Calgary EATS.

PRINCIPLES AND METRICS OF CALGARY'S FOOD SYSTEM

Principle	Metrics
Local	Number of Calgarians who express support for local food Number of Calgarians who purchase local food Number of Calgarians who grow their own food Number of neighbourhood and community destinations and gatherings related to local food*
Accessible	Alberta Nutritious Food Basket Price Report (\$) Number of Calgarians/ percentage of population living within access to a full-service grocery store Number of Calgarians accessing emergency food programs Number of mobile food vendors Number of Calgarians completing food skills programs*
Secure Supply	Hectares of urban and regional farmland Number of urban and regional farms and farm operators Average distance food travels from farm to plate (km) Number of land use planning initiatives protecting agricultural land*
Environmentally Sustainable	Environmentally sustainable agriculture practices in Alberta (adoption score) Number of food gleaning initiatives Number of LEAF certified restaurants Amount of food diverted from landfill (tonnes)* Amount of food composted (tonnes)* Number of community composting facilities* Value of ecological goods and services provided by local farms (\$)*
Health	Number of Calgarians consuming recommended fruits and vegetables (5x/day) Chronic disease and obesity rates (%) Leisure time physical activity (%) Number of Calgarians completing food safety programs Number of student nutrition programs*
Community Economic Development	Number of community food assets (farmers' markets, community gardens, orchards) Farmers' market and farm retail market value (\$) Percentage of local food purchased by institutions (%)* Value added to the local economy (\$)* Number of local food businesses and jobs* Local food purchased through Calgary mainstream retailers (\$)*

^{*}Insufficient resources to collect data at present time



Photo courtesy of Apiaries and Bees for Communities

Local

Products made, baked, grown and sold in Alberta are supported, and balanced in a context of national and international markets.

WHAT YOU SHOULD KNOW

- Some of the reasons that people buy food grown or made in Alberta are freshness, quality, taste, safety and support for Alberta farm families (Alberta Agriculture & Rural Development, 2013).
- Local food systems act as gathering and community building initiatives and work as a mechanism to reinforce a sense of place and community identity (Deloitte LLP, 2013).
- Studies have shown that community gardens have a positive impact on community resilience and can contribute to lowering crime rates (Herod, 2012).
- A sustainable food system requires a "hybrid economy" that includes a balance of both imports/exports and locallyproduced food. A diversity of markets channels and scale increase the resiliency of the food system, ensuring regional self-sufficiency and food security.
- A **food shed** is the geographic region required to produce the food for a particular population. Based on the results of a recent food shed study, provincial production for beef and poultry, dairy, eggs, grains and oilseeds is sufficient to meet 30 per cent of Calgary's projected municipal food needs in 2036 within 300 km geographically of the city. Relative to demand, other food groups, such as fruits and vegetables increase the geographic food shed to over 1,000 km and production of these crops is limited in both variety and seasonal availability (Pierce, 2014).

"The increased availability of locally produced food (especially at places like co-op) make a big difference in helping people feel more connected to their food and the people who grow/raise it."

Calgary EATS! Survey

HOW ARE WE DOING?

69% of Calgarians express support for local food.

76% of Calgarians believe it is important to purchase local food.

70% of Calgarians purchase local food.

53% of Calgarians grow their own food.

(Insights West, 2014)



PROPOSED METRIC:

Number of neighbourhood and community destinations and gatherings related to local food.

Calgary Support for Local Food:

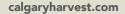


^{*}Growing food can refer to any quantity of herbs, fruits or vegetables grown in pots/containers, backyard, community garden or elsewhere. This definition varied in the 2010 and 2014 surveys.

Calgary Urban Harvest

Courtesy of Adrian Buckley

Calgary Harvest is an organization dedicated to turning a fallen fruit problem into a local food solution. Calgary Harvest started in 2009 with the harvest of a single tree. From there it grew, with 100 trees harvested in 2010. Since 2011, Calgary Harvest has operated on a community scale, with neighbourhood coordinators organizing harvests. There are numerous types of fruit grown locally in Calgary; including apples, pears, plums, cherries, and even apricots when the weather is right. The fruit is divided amongst volunteers, home owners, Calgary Harvest, and community groups. Calgary Harvest is a sponsored project of the Permaculture Calgary Guild.







Accessible

Photo courtesy of Miriam Bankey

All people, at all times, have physical, social and economic access to sufficient, safe, healthy and nutritious food to meet their dietary needs

WHAT YOU SHOULD KNOW

- Some of the reasons that people buy food grown or made in Alberta are freshness, quality, taste, safety and support for Alberta farm families.
- The first measure of quality for any community is how well it provides for life's necessities, beginning with shelter and food (Proscio, 2006).
- Household food insecurity (inadequate or insecure access to food because of financial constraints), is a significant social and public health problem in Alberta. In 2011, 12.3 per cent of households in Alberta were food insecure (Tarasuk, Mitchell, & Dachner, 2012).
- In order for food to be considered affordable, the cost of food cannot exceed 15 per cent of the monthly household budget as it must be put in context with other basic household needs (housing, transportation and childcare). But for low-income Albertans, food can cost as much as 32 per cent of their monthly budget (Dieticians of Canada; Alberta Public Heath Services, 2008).
- According to the Calgary Municipal Development Plan, land use policies should "allow for local food production" in addition to using street network patterns that allow for multiple modes of transportation to access services, such

as grocers. There are currently 59 communities in Calgary that have less than 50 per cent service areas coverage accessibility to a full-service grocery story using alternative modes of transportation (Ahorn, Pham, & Pickering, 2014). In other words, less than 50 per cent of the footprints of these communities have a network pattern that allows access to a full-service grocery store without using a car. The cut-off distances for access to a full-service groceries store are as follows:

- o Walkability: within a 1 km radius
- o Cycling: within a 2 km radius
- o Transit: within 400m of a bus stop or LRT station

"A successful food system would be accessible to all Calgarians: Programs to encourage and facilitate interaction with the local food system across all socioeconomic levels, not just by wealthy; School programs to teach gardening to kids and where food comes from; An overall municipal plan to encourage healthy ecosystems. The local food system should take into account our local climate and seek ways to conserve throughout the winter."

- Calgary EATS! Survey

HOW ARE WE DOING?

Alberta Nutritious Food Basket Price Report:

\$/84/month



(Dieticians of Canda; Alberta Public Health Services; Alberta Health Services, 2008)

Complete Communities:

134 communities have at least 50% access (based on the geographic area of the community) to a full-service grocery store using alternative modes of transportation other than automobile (walking, cycling, transit) while 59 communities have less than 50% access.

(Ahorn, Pham, & Pickering, 2014)



One mobile food vendor in Calgary (Wandering Farmer Project). Currently, Calgary has 23 active food trucks.3



129,948 families and individuals from all neighbourhoods and all quadrants of the city used the Calgary Interfaith Food Bank in 2013.

of the Calgary

• Food Bank's clients were children.

(Calgary Food Bank, 2014)

PROPOSED METRIC:

Number of Calgarians completing food skills programs.

3 While food trucks add to community culture and are contributing to the local economy they are not strictly enhancing accessibility for Calgarians experiencing food insecurity.

Grow Calgary

On an 11-acre parcel of land just west of Canada Olympic Park, a group of dedicated volunteers turned the soil and harvested the first crop on Canada's largest urban agricultural farm. Their goal is to grow fresh produce for the Calgary Interfaith Food Bank to ensure all Calgarians have access to healthy, local food. So far this season Grow Calgary has provided over 8,000 lbs of organic, local produce to the Calgary Food Bank, reaching 540 food hampers.

growcalgary.ca



Story and photo courtesy of Grow Calgary

Calgary Urban Project Society (CUPS) **Nutrition Program**

The Good Food and Nutrition Program at CUPS creates opportunities for individuals and families who are experiencing poverty to engage in Calgary's food system. We offer education about the benefits of healthy eating and improving food skills. Our mission is to increase food literacy thereby increasing accessibility to healthy food as opposed to a 'hand out' approach to food security. By teaching nutrition through food skills and bringing people together through food, low income community members are empowered with the skills to choose, plan, and cook healthy and affordable meals. The community experiences the health benefits of a better diet and the pleasures of socializing around food.

cupscalgary.com



Photo courtesy of Miriam Bankey



Secure Supply

A consistent supply of sufficient, safe, healthy and nutritious food that is not vulnerable to fluctuations such as high fuel prices or natural disasters.

WHAT YOU SHOULD KNOW

- A hybrid economy increases the resiliency of our food system to ensure a secure supply of food in times of crisis caused by economic or environmental events.
- In the flood of 2013, Calgary had enough food on grocery store shelves for three days. Had the city been cut off from external supply for a longer period of time, Calgary could have experienced a food shortage.
- The average distance food travels is not just about freshness and nutrition, or food miles and related greenhouse gas emissions, it is also an indicator of a diversified economy that celebrates our landscape, putting Calgary on the map as a destination for foodrelated tourism and dining.
- The Calgary Regional Partnership released the Calgary Metropolitan Plan in May 2014. This plan highlights a number of strategies to protect agricultural land in the Calgary region. Example strategies include: developing compact communities and supporting sustainable rural development which are intended to sustain agricultural lands, preserve green spaces and minimize the impact of development on environmental processes and agricultural capacity (Calgary Regional Partnership, 2014).

"It just feels good knowing how your food was grown/ raised and who has grown it for you. Gardening has brought me connections with my neighbours as I don't know what I am doing and need advice and inspiration. Nothing feels better than going out to the garden, picking something fresh, and serving it the same day."

Calgary EATS! Survey

HOW ARE WE DOING?

In the Calgary region, the number of farms has decreased by **15.5%** since 2006 to 3,332 farms in 2011. Similarly,

the number of farm operators has declined 15.6%

since 2006 to 4,805 in 2011.

(Government of Alberta, 2014)

Currently, there are 10,374 hectares of urban farmland, and 3,012,694 hectares of regional farmland in and around Calgary which equals a decline by 7.3% from 2006 to 2011.

(Government of Alberta, 2014)

Our food travels an average of 4500km FROM FARM TO PLATE

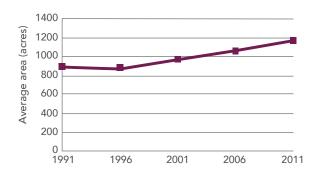


PROPOSED METRIC:

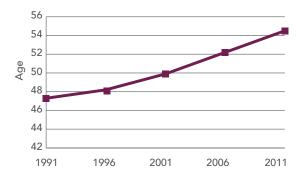
Number of land use planning initiatives protecting agricultural land.

Over the past two decades, the number of farm operators in Alberta has declined and the average farm size is increasing as family farms disappear, and farmland is consolidated. The average age of farmers in Alberta is now 55 years of age as there is a dramatic decline in the number of young farmers (ages 15-34) entering the industry, casting a shadow on farming's future.

Average area per farm in Alberta:

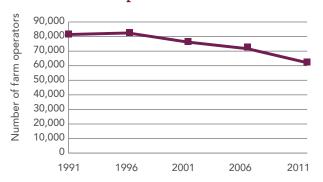


Average age of farmer operators in Alberta:



Canada lost more than 70% of its family farms in the last 75 years

Number of farm operators in Alberta:



Source: http://www.statcan.gc.ca/ca-ra2001/first-premier/profiles/06alta-alb-eng.htm http://www.statcan.gc.ca/pub/95-632-x/2007000/t/4185586-eng.htm http://www.statcan.gc.ca/pub/95-640-x/2012002/prov/48-eng.htm

YYC Metro Growers

YYC Growers and Distributors is a non-profit alliance of Urban/SPIN farmers and entrepreneurial food growers in Calgary, sharing knowledge and building an infrastructure so all can thrive. SPIN (small plot intensive) is a farming method that takes a backyard, front lawn or neighbourhood lot to new levels of productivity and profitability that go beyond traditional home gardening practices. YYC Growers + Distributors are committed to building food security for Calgary by providing good, high quality produce that is grown within the city.

yycgrowers.com



Environmentally Sustainable

Ensuring the protection of air, land and water is critical for achieving healthy ecosystems by minimizing greenhouse gas emissions, potable water use and waste and maximizing efficient use of land, air quality, water quality and biodiversity.

WHAT YOU SHOULD KNOW

- Forty per cent of all food in Canada is wasted from farm to plate, costing the economy \$27 billion and releasing 119 million tonnes of greenhouse gas emissions each year (CBC News: Canada, 2012).
- If 10 per cent of 28 fruits and vegetables were purchased from local sources, up to 17 times less carbon dioxide (CO₂) would be emitted than if the foods were purchased from global sources, saving 436 thousand gallons of fuel in one year (Deloitte LLP, 2013).
- One study found that the conventional food distribution system used 4 to 17 times more fuel and emitted 5 to 17 times more CO₂ than the local and regional systems. Similarly, a Canadian study estimated that replacing imported food with equivalent items locally grown in the Waterloo, Ontario, region would save transport-related emissions equivalent of nearly 50,000 metric tons of CO₂, or the equivalent of taking 16,191 cars off the road (DeWeerdt, 2009).
- Kentucky Bluegrass lawn has been the standard in cities like Calgary. However, Kentucky Bluegrass is not a hardy species and, therefore, requires more water, fertilizer, and pesticides than more hardy, native grasses. The Coalition for a Healthy Calgary recommends other more water-wise landscape options, such as trees, shrubs, vegetable gardens (permaculture or food forest designs) to conserve our resources and reverse the environmental impacts of green space in the city. With Calgary's growth rate and current trends in climate change, water conservation and other environmental stewardship practices will be necessary.

"A successful food system would aim to minimize our carbon footprint, provide all Calgarians with access to local/nutritious/affordable food, and have a transparency such that anyone can learn about where the food they are consuming came from."

HOW ARE WE DOING?

Environmentally sustainable agriculture practices in Alberta:

Adoption score

55%(IPSOS REID, 2012)



ONE FOOD GLEANING INITIATIVE

(Calgary Urban Harvest Project)

(Calgary Urban Harvest Project)

20 LEADERS

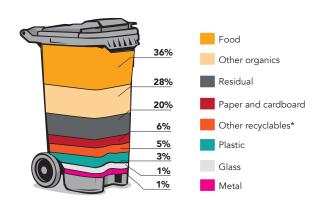
in Environmentally
Accountable Foodservice
(LEAF) certified restaurants
in Calgary.

(LEAF: Leaders in Environmentally Accountable Foodservice, 2014)

PROPOSED METRICS:

- Amount of food diverted from the landfill (tonnes)
- Amount of food composted (tonnes)
- Number of community composting facilities
- Value of ecological services provided by local farms (\$)

Single Family Waste Composition 2014:



^{*} The 'Other Recyclables' category only applies to the Single, Multi-Family and C&D sectors and it includes recyclable material that cannot go in the blue bin, but can be brought to a City of Calgary recycling program.



Photo courtesy of Leaf Ninjas

Organic food from farm to doorstep

Story Courtesy of REAP Business Alliance

When Brigitte Legault and her husband Dylan started their family, they began to make a more conscious effort to eat organic, local produce. However, they found that it was very difficult to consistently find locally produced organic food until Brigitte found Green Earth Organics, a company out of Vancouver that delivers fresh fruits, vegetables and other organic products from farm to doorstep. She decided it was time to bring that service to Calgary. Green Earth Organics is a home delivery service that makes it easy to eat organic, local produce.



LEAF helps customers decide where to dine

Story courtesy of REAP Business Alliance

As an environmentally conscious customer, it can be difficult to make a knowledgeable decision about where to dine out. Thankfully LEAF (Leaders in Environmentally Accountable Foodservice) recognizes restaurants that are committed to reducing their impact on the environment. LEAF certified restaurants have all completed a rigorous on-site environmental audit by an independent third party so that Calgarians can feel good about supporting conscientious establishments.





Healthy

Refers to the food and beverages listed in Eating Well with Canada's Food Guide which emphasizes vegetables, fruits, whole grains, legumes, nuts, seeds, dairy, meats, fish and poultry. These foods are prepared and served in a way that supports national and provincial recommendations for sugar, sodium and fat.

WHAT YOU SHOULD KNOW

- Active local food systems provide more opportunities for people to include fresh, local produce as a part of their diet (University of Wisconsin: Population Health Institute, 2010).
- It is well documented that unhealthy eating contributes to the development of diet-related, chronic disease such as hypertension, heart disease, stroke, certain types of cancer and type 2 diabetes and their co-morbidities (Peterborough County-City Health Unit, 2010).
- Greater supermarket availability has been associated with lower prevalence of obesity and weight gain; children who live far away from a grocery store appear to have higher BMIs than children living closer to a store. Some studies associate increased supermarket availability with increased fruit and vegetable intake (Peterborough County-City Health Unit, 2010).
- There is some evidence that community gardens improve access to and consumption of fruits and vegetables. Community gardens can also increase physical activity for gardeners. Community gardens are a suggested strategy to increase fruit and vegetable availability in food deserts, promote healthy eating, and reduce obesity (University of Wisconsin: Population Health Institute, 2010).

- The availability of healthy foods in grocery stores and restaurants, in schools and on the job, at a street-corner stand and at a farmers' market - is the hallmark of a thriving community that supports the health of its residents (Convergence Partnership; Policy Link; Prevention Institute, 2010).
- The development of a quality food market often makes a decisive improvement in the health of the community as a whole - in the presence of people on the streets and sidewalks, the additional security that such traffic brings, and the perception of the community as an attractive place to live and do business (Proscio, 2006).



Photo courtesy of James Moes

HOW ARE WE DOING?



(Statistics Canada 2013)

57.5% of Calgarians engage in PHYSICAL ACTIVITY during leisure time.

(Statistics Canada 2013)

Calgarians completed food safety training.

(S. Nunn, personal communication, September 16, 2014)

15.8%

obesity rate in Calgary;

5.2% of Calgarians have

diabetes;

2.9% COPD.

(Statistics Canada 2013)

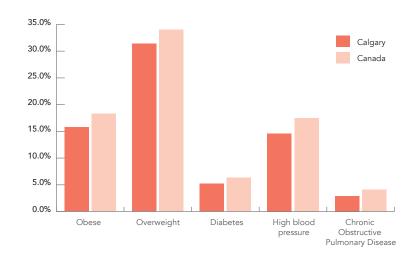
14.6%

high blood pressure;

PROPOSED METRIC:

Number of student nutrition programs (currently, approximately nine agencies in Calgary are working to provide food programming for children).

Health Indicator in Calgary and Canada:



PreServe Foodskills

Story Courtesy of REAP Business Alliance

For Jessica Matthies, founder of [pre]serve foodskills, a meal is about so much more than just eating. It's about the activity and relationships that come with making and preserving food. As our lives get busier and busier, and our reliance on premade food increases, our connection with the food we eat tends to break down. We can find ourselves buying all of our food on the run. By teaching people the skills required to preserve their own food, Jessica hopes to restore a culture of connection and reciprocity centered around food.

preservefoodskills.com



Photo courtesy of James Moes



Community Economic Development

Support of community development and action taken locally to create economic opportunities in the community on a sustainable and inclusive basis.

WHAT YOU SHOULD KNOW

- More than a dozen studies have shown that every dollar spent at a locally owned business generates two-to-four times the economic development impacts than a dollar spent on an equivalent non-local business. This means that every dollar spent locally produces two-to-four times the local jobs, the local income and wealth effects, the local taxes, and two-to-four times the local charitable contributions.
- In 2012, the agriculture and agri-food services sector provided one in eight jobs, employing over 2.1 million people in Canada (Agriculture & Agri-Food Canada, 2014).
- Food industry jobs in Calgary are expected to increase by 19 per cent from 2010 to 67,573 by 2020 (Calgary Economic Development, 2012).
- Restaurants sourcing Alberta food earn a 46 per cent price premium; and almost 25 per cent of Alberta households chose restaurants because they use Alberta ingredients (Alberta Agriculture & Rural Development, 2013).

Examples from other regions estimate that for every job in the region's agricultural sector, four additional jobs are supported in the economy (Deloitte LLP, 2013) and that if \$10 a week would be spent on local food, it would help create 1500 more jobs in the year, and retain \$150 million more in our local economy (Tyler, 2014).

"The local food system is providing us with healthy, nutritious, organic food that is investing money back into our own community. With the local food system we know where our food comes from, who grows it, what's in it, and most importantly it reconnects us with our community."

– Calgary EATS! Survey

HOW ARE WE DOING?

Farmers' market and farm **retail** market value in **Calgary** is

\$878 million (tripled since 2004)

(Alberta Agriculture & Rural Development, 2013)





19 farmers/public markets

10 community supported agriculture programs

200+ community gardens

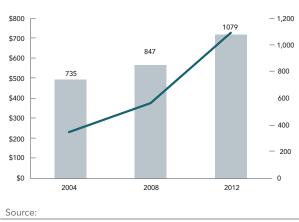
8 urban orchards;

4 food home delivery services (2014)

PROPOSED METRICS:

- Percentage of local food purchased by institutions (%)
- Value added to the local economy (\$)
- Number of local food businesses and jobs
- Local food purchased through Calgary mainstream retailers (\$)

Farmers' markets:



http://www1.agric.gov.ab.ca/\$Department/deptdocs.nsf/all/explore14403)

Number of purchasing households (in thousand)

Market value (\$million)

You can't put a label on Localize

Story courtesy of REAP Business Alliance

Localize is informing shoppers about the options to support local and regional food businesses with each purchase. Localize labels measure everything relative to each specific retail location. Every label shows a "Localize Score" and associated code that you can scan to see exactly how far away the producer is. The labels are now being used in over 250 grocery stores across Canada, meeting Localize's mandate to make the products in those stores truly reflective of local communities and local businesses.

localizeyourfood.com



CONCLUSIONS

There are three key findings that highlight the importance of the food system in Ca\lgary. These findings suggest that food policy work is a strategic way for The City of Calgary to address the negative impacts of a failing food system (i.e. uneven access to food, social isolation, and diet-related health issues) and to use food as a vehicle for achieving broader municipal goals.

KEY FINDINGS

1. The food system is an important economic driver.

Food is an important sector of the regional, national and global economies, providing employment and economic diversification as well as opportunities within emerging fields such as green collar employment and social enterprise. Food represents a significant workforce sector in Calgary: the number of food industry jobs is expected to increase to 67,573 jobs by 2020 (Calgary Economic Development, 2012). Food manufacturing is also the largest manufacturing subsector in Calgary (Calgary Economic Development, 2009).

The food system is driving local economic activity as an increasing number of Calgarians become interested in growing their own food (53 per cent), supporting local food (78 per cent), and purchasing local food (70 per cent) (Insights West, 2014). As a result, farmers' markets, restaurants, and other food businesses are capitalizing on the opportunity. For example, revenues from farmers' markets and farm retail in Alberta have tripled in the past decade to \$878 million; and, in 2012, consumers spent \$374 million at restaurants serving local food (Alberta Agriculture & Rural Development, 2013). Calgary's local restaurant scene is currently gaining national and international attention as a destination for food tourism (Smith, 2014).

Local businesses are also emerging to meet demand for local production (urban/SPIN farmers), processing (food skills programs and value-added businesses), distribution (community supported agriculture and home delivery services), and consumption (restaurants, culinary education and food tourism). These local businesses bring a positive economic multiplier effect as locally-owned businesses recirculate 25 per cent more of their revenue in the community than chain stores (American Independent Business Alliance, 2014). Therefore, shifting 10 per cent of spending to local food businesses could potentially create 1,500 new jobs and retain \$150 million in the local economy each year (American Independent Business Alliance, 2014).

2. The food system promotes resilient communities.

Food is inherently social, and an important part of many people's culture. Community gatherings and cultural celebrations are commonly and traditionally centered around food. Many food-related activities, like gardening and cooking, offer a significant opportunity for new communities and new Calgarians to establish social connections, and share cultural and familial customs.

When people know each other they are more likely to take care of each other, especially in times of crisis. By encouraging social interaction through community gardens, community supported agriculture, food buying clubs, and local farmers' markets, Calgary can build stronger neighbourhoods and more resilient communities. For example, studies have shown that people have ten times more conversations at a farmers' market than they do at a supermarket (Herod, 2012). Several studies have also shown that community gardens can contribute to lowering crime rates in the neighbourhood (Deloitte LLP, 2013), and the more often families eat meals together, the less likely teens are to be involved in violence or use tobacco, marijuana and alcohol (Bullick, 2012).

The community interest in local food is growing exponentially. Community gardens have increased from 11 in 2008 to 140 in 2013, and more than 200 in 2014 (Calgary Horticultural Society, 2014). According to the Calgary Horticultural Society, Calgarians are coming together around community gardens for many reasons, including environmental concerns, health concerns, recreation and knowledge-sharing opportunities, or just simply because locally grown food tastes better. There are also currently eight urban orchards in Calgary, and an increasing number of Calgarians who are interested in backyard beekeeping.

3. The food system is integral to healthy citizens.

Municipalities are becoming involved in food policy work as a result of household food insecurity, and rising health conditions. Household food insecurity is an inadequate or insecure access to food because of financial constraints. In 2011, 12.3 per cent of households in Alberta were food insecure (Tarasuk, Mitchell, & Dachner, 2012). In order for food to be considered affordable, the cost cannot exceed 15 per cent of the monthly household budget as it must be put in context with other basic household needs (housing, transportation and childcare). And yet, for low-income Albertans food can cost as much as 32 per cent of their monthly budget (Dieticians of Canada; Alberta Public Heath Services, 2008).

A person's ability to physically and economically access and prepare nutritious food is a predictor of dietrelated diseases, such as obesity, diabetes, and hypertension (Peterborough County-City Health Unit, 2010). In Calgary, there is a 15.8 per cent obesity rate; 5.2 per cent of Calgarians have diabetes, 14.6 per cent have high blood pressure and 2.9 per cent have Chronic Obstructive Pulmonary Disorder (COPD) (Statistics Canada, 2013). There were also nearly 130,000 Calgarians who accessed the Food Bank in 2013, and 42 per cent were children (Calgary Food Bank, 2014).

Access to nutritious, fresh, and in-season produce can be part of a cost-effective solution to these health-related issues (Twiss, Dickson, Duma, Kleinman, Paulson, & Riviera, 2003) (Draper, 2010). For example, the Municipal Development Plan aims to establish complete communities with mobility options that allow citizens to meet their daily needs, such as access to full-service grocers. Moreover, gardening is a common way for Calgarians to get outside and be active. Learning how to garden or honing a new food skill can also increase access to healthy fruits and vegetables. Currently, 53 per cent of Calgarians grow some of their own food, which suggests that there is a growing interest in gaining new skills to improve health and quality of life (Insights West, 2014).

NEXT STEPS

Many food policy initiatives, including those being implemented by Calgary EATS! have a common path: starting with a community food assessment, building the food system network, identifying projects and educational events and then creating a Food Charter or Municipal Strategy and Action Plan (MacRae & Donahue, 2013).

Calgary has taken the first steps by building the Calgary EATS! food system network, and completing a Food System Assessment and Action Plan (2012). As previously mentioned, this is the very first monitoring report of the Calgary EATS! Action Plan. Future progress reporting will be required to monitor changing trends, collect further data, and assess progress towards the principles and vision outlined in the Plan.

An important next step is to build the capacity and resources of the Calgary Eats! network to capitalize on past successes and to identify and implement innovative capacity-building projects now and into the future. Many creative projects are already happening throughout Calgary and citizens are the main drivers behind these initiatives. Going forward it is important to address the challenge of how the local food movement can be further grown to benefit as many Calgarians as possible. This is important from a 'complete communities' point of view, offering improved access to grocery stores and building strong connections around community gardens and markets. It is also imperative in efforts to build new communities and welcome newcomers to Calgary as this city continues to grow. A clear implementation strategy for achieving the Calgary EATS! vision, principles, and actions will be key to success in these areas.

Strong political champions and a close link to other municipal mandates have proven to be successful tactics for other food policy initiatives across Canada. Initiatives with fewer direct links to municipal government tend to be more tenuous and struggle with effectiveness (MacRae & Donahue, 2013).

Calgary EATS! is a food policy initiative that can help Calgarians create a sustainable and resilient local food system: one that supports a vibrant local economy, strong community connections, and access to healthy and sustainably produced food so that we can feed not only ourselves, but future generations to come.

GLOSSARY

Community supported/shared agriculture (CSA): Community supported agriculture is a part of a growing social movement that encourages urban and rural citizens to share responsibility for the food that is grown. Consumers purchase shares in the farm operation where the farmers and consumers share the risks and benefits of food production.

Food policy: Any decision made by a government agency, business, or organization which affects how food is produced, processed, purchased or protected. It can be legislative, regulatory or visionary.

Food security: All people, at all times, have physical, social and economic access to sufficient, safe, healthy and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Food shed is the geographic region that produces the food for a particular population. The term is used to describe a region of food flows, from the area where it is produced, to the place where it is consumed, including: the land it grows on, the route it travels, the markets it passes through, and the tables it ends up on.

Food system: activities of commercial and non-commercial actors who grow, process, distribute, acquire, and dispose of food.

Green collar employment: Employment in agricultural, manufacturing, research and development, administrative, and service activities that contribute to preserving or restoring environmental quality.

Systems approach: is the process of understanding how things, regarded as systems, influence one another within a whole. Systems thinking is not one thing but a set of habits or practices within a framework that is based on the belief that the component parts of a system can best be understood in the context of relationships with each other and with other systems, rather than in isolation. Systems thinking focuses on cyclical rather than linear cause and effect.

Systems thinking: awareness of how actions by one group in the system affect other groups, as well as affecting the environment, the economy and the fabric of society, the health of the population and ultimately consumers.

WORKS CITED

- Agriculture & Agri-Food Canada. (2014, April 15). Overview of Canadian Agriculture & Agri-Food System, 2014. Retrieved November 3, 2014, from http://www.agr.gc.ca/eng/about-us/publications/economic-publications/alphabetical-listing/an-overview-of-the-canadian-agriculture-and-agri-food-system-2014/?id=1396889920372
- Ahorn, J., Pham, N., & Pickering, M. (2014). Calgary Food Mapping. Calgary: SAIT.
- Alberta Agriculture & Rural Development. (2013). Local Market Expansion Project: Alternative Agriculture Markets in Alberta, 2012. Edmonton: Alberta Agriculture & Rural Development.
- American Independent Business Alliance. (2014). *Multiplier Effect on Local Independent Businesses*. Retrieved September 16, 2014, from http://www.amiba.net/resources/multiplier-effect
- Bullick, T. (2012). *Apple*. Retrieved November 16, 2014, from Alberta Health Services website: http://www.albertahealthservices.ca/apple/6166.asp
- Calgary Economic Development. (2009). Calgary: Manufacturing Force, Manufacturing Sector Profile. Calgary: Calgary: Calgary Economic Development.
- Calgary Economic Development. (2012). Economic Resarch Reports: Workforce. Retrieved October 15, 2014, from http://www.calgaryeconomicdevelopment.com/sites/default/files/pdf/research/reports/whats_new/2012%20Global%20demand%20and%20labour%20supply%20study%20-%20Top%20 500%20in%20demand%20occupations.pdf
- Calgary Food Bank. (2014). Food Bank Fast Facts. Calgary: Calgary Food Bank.
- Calgary Horticultural Society. (2014). *Gardening for Life!* Retrieved October 15, 2014, from http://www.calhort.org/
- Calgary Regional Partnership. (2014). Calgary Metropolitan Plan. Calgary: Calgary Regional Partnership.
- CBC News: Canada. (2012, October 1). *News: Canada*. Retrieved November 3, 2014, from http://www.cbc.ca/news/canada/most-of-canada-s-wasted-food-dumped-from-homes-1.1132998
- Convergence Partnership; Policy Link; Prevention Institute. (2010). Recipies for change: Healthy Food in Every Community. Toronto: Tides Foundation.
- Deloitte LLP. (2013). Best Practices in Local Food: A Guide for Municipalities. Toronto: Deloitte LLP.
- DeWeerdt, S. (2009). *Is Local Food Better?* Retrieved November 5, 2014, from Worldwatch Institute: Vision for a Sustainable World: http://www.worldwatch.org/node/6064
- Dieticians of Canda; Alberta Public Health Services; Alberta Health Services. (2008). Cost of Eating in Alberta. Calgary: Alberta Community/Public Health Nutritionists Food Security Subcommitteee.
- Draper, C. F. (2010). Review & Analysis of the Benefits, Purposes and Motivations Associated with Community Gardening in the United States. *Journal of Community Practice*, 458-492.
- Government of Alberta. (2014). Business in Alberta: Agriculture. Retrieved October 1, 2014, from http://www.albertacanada.com/business/statistics/calgary-agriculture.aspx
- Herod, M. R. (2012). Cultivating Community: connecting community gardens and crime prevention. Waterloo: University of Waterloo.
- Insights West. (2014, September 25). Calgary EATS! 2014 Omnibus Survey. Calgary, Alberta, Canada.
- IPSOS REID. (2012). 2012 Environmentall Sustainable Agriculture Tracking Survey. Edmonton: Government of Alberta.

- Irshad, H. (2010). Local Food A Rural Opportunity. Edmonton: Government of Alberta: Agriculture & Rural Development.
- LEAF: Leaders in Environmentally Accountable Foodservice. (2014). LEAF Certification. Retrieved November 13, 2014, from http://leafme.ca/mission-and-objectives/
- MacRae, R., & Donahue, K. (2013). Municipal Food Policy Entrepreneurs. Toronto: Toronto Food Policy Council, Vancouver Food Policy Council & CAPI.
- Peterborough County-City Health Unit. (2010). Community Assessment Report: Healthy Communities. Peterborough: Peterborough County-City Health Unit.
- Pierce, C. (2014). Eating Local: A Method for Defining a Foodshed. Calgary: University of Calgary.
- Proscio, T. (2006). Food, Markets & Healthy Communities: How food stores accelerate local development and enrich residents' lives. Journal of Housing & Community Development, 20-27.
- Smith, K. (2014, November 3). Globe & Mail: Life: Travel: Destinations. Retrieved November 16, 2014, from Globe & Mail website: http://www.theglobeandmail.com/life/travel/destinations/calgarys-food-scenegrows-up-have-you-eaten-here-yet/article21424440/
- Statistics Canada. (2012, January 29). Average household expenditure, by province (Alberta). Statistics Canada, CANSIM, table 203-0021 and Catalogue no. 62F0026M. Retrieved November 18, 2014, from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil130j-eng.htm
- Statistics Canada. (2013, December 12). Calgary Zone (Health Region), Alberta and Alberta (table). Health Profile. Statistics Canada Catalogue no. 82-228-XWE. Retrieved November 14, 2014, from http:// www12.statcan.gc.ca/health-sante/82-228/details/page.cfm?Lang=E&Tab=1&Geo1=HR&Code1= 4832&Geo2=PR&Code2=48&Data=Rate &SearchText=Calgary %20Zone&SearchType=Contains& SearchPR=01&B1=All&Custom=&B2=All&B3=All
- Tarasuk, V., Mitchell, A., & Dachner, N. (2012). Household Food Insecurity in Canada. Toronto: PROOF & CIHR.
- Toronto Food Policy Council. (2014). Municipal Food Policy. Retrieved October 7, 2014, from http://tfpc.to/ canadian-food-policy-initiatives
- Twiss, J., Dickson, J., Duma, S., Kleinman, T., Paulson, H., & Riviera, L. (2003). Community Gardens: Lessons Learned from California Healthy Cities and Communities. American Journal of Public Health, 1435-1438.
- Tyler, C. (2014, November 10). REAP Earns Respect. Retrieved November 16, 2014, from Fast Forward Weekly website: http://www.ffwdweekly.com/life/shop-local/reap-earns-respect/
- University of Wisconsin: Population Health Institute. (2010). Policies & Programs to Improve Wisconsin's Health. Retrieved October 29, 2014, from What Works for Health: http://whatworksforhealth.wisc.edu/ factor.php?id=12

APPENDIX I: Leading Food Policy Work from Across Canada

Toronto Food policy Council (TFPC)

- Established: 1991
- Documents:
 GrowTO, Urban Agriculture
 Action Plan, Food Charter,
 Planting the Seeds,
 A Growing Season
- Structure: Advisory
 committee under Toronto
 Public Health. It reports to
 the Board of Health, as well
 as City Council through
 the Social Development
 department.

Vancouver Food Policy Council (VFPC)

- Established: 2004
- Documents:
 Greenest City Action Plan,
 Food Charter, Food Secure
 Vancouver: Baseline
 Report
- Structure: Advisory committee within the City of Vancouver's Social Development Department

Vancouver Food Policy Council (VFPC)

- Established: 2013
- Documents:
 The City of Edmonton's
 Food & Urban Agriculture
 Strategy: Fresh
- Structure: The Food &
 Urban Agriculture Project
 is situated in Sustainable
 Development. The
 Edmonton Food Council
 advises City of Edmonton
- Montreal has been working to develop and protect community gardens since 1975 (Deloitte LLP, 2013). They now have 97 community gardens and 8,195 allotments.
- The Waterloo Region is addressing a lack of markets for fresh produce by supporting neighbourhood markets in community centres, hospitals and other public places to increase consumption of fresh fruits and vegetables, access to locally grown produce and increase social connections within neighbourhoods (Deloitte LLP, 2013).
- British Columbia's Capital Region's Food and Agriculture Initiatives Roundtable (CR-FAIR)
 formed in 1997 as a coalition of organizations and individuals working to strengthen regional
 food security and the local food system. CF-FAIR's vision is to increase knowledge of and
 bring about positive change in the food and agriculture system within the Capital Region
 (Toronto Food Policy Council, 2014).
- Thunder Bay Food Action Network (FAN) started in 1995 as a partnership between two social service agencies in Thunder Bay, the Community Health Centre and the District Health Unit to acknowledge the importance of food as a critical social determinant of health(Toronto Food Policy Council, 2014).
- Ottawa Just Food was established in 2000 by community members concerned about food security and several departments of the Regional Municipality of Ottawa-Carleton on the role that local food initiatives can play in a greener, more inclusive city (Toronto Food Policy Council, 2014).

APPENDIX II: City of Calgary Business Units and Food Policy

Business Unit	Activities
Transportation	 The Municipal Development Plan and the Calgary Transportation Plan jointly aim to establish complete communities with mobility options that allow Calgarians to meet their daily needs (i.e. food) efficiently right where they work and live. Transportation choices contribute a significant portion of Calgary's community-wide greenhouse gas emissions. By making it easier for Calgarians to access local food in their own neighbourhoods, we can reduce their dependence on vehicles, and make it easier for them to do more of their daily tasks using alternative transportation options.
Planning, Development & Assessment	 The Municipal Development Plan encourages community gardens, urban agriculture and promotes food production. The Municipal Development Plan promotes composting and promotes the use of renewable energy sources which would include energy from waste, policies contained within Area Structure Plans and Area Redevelopment Plans encourage composting.
Community & Neighbourhood Services	 Places Community Social Workers (CSWs) in targeted communities through both the Strong neighbourhoods Initiative and the Communities of Focus Initiative to increase social inclusion and build strong neighbourhoods. CSWs support residents in the creation of community gardens, local farmers' markets, and in the provision of breakfast clubs and lunch programs. Access to resources for residents is important: ensure there is promotion of the relevant food serving agencies and programs, such as the good food box, the food bank, etc. Family Community & Support Services provides funding to programs aimed at increasing social inclusion for vulnerable Calgarians, including programs that increase economic self-sufficiency and food security.
Waste & Recycling Services	 Composting of organic material reduces waste to landfill toward the 80/20 by 2020 target The waste hierarchy supports the reuse, reduction and composting of organic materials. Waste & Recycling Services plans to launch city-wide green cart services (food and yard waste) to 310,000 homes starting in 2017. The City will open in a residential compost facility in 2017. An organics ban from landfills will come into effect in 2019. Some commercial food waste, Christmas trees, leaves and pumpkins, etc. are accepted for composting – sold to commercial operations or donated to community gardens. Sale of backyard composters to citizens. Partners with Green Calgary to offer composting education

<u>APPENDIX II:</u> City of Calgary Business Units and Food Policy Cont.

Business Unit	Activities
Environmental & Safety Management	 Strengthening Calgary's local food systems can contribute to achieving Calgary greenhouse gas reduction targets outlined in the Community Greenhouse Gas Reduction Plan. By encouraging composting and reducing the amount of food waste in the landfills, we can reduce the methane (a greenhouse gas that is more than 25 times more potent than carbon dioxide) coming from Calgary's landfills. Calgary's eco-footprint calculator includes food choices when calculating Calgarians overall ecological footprint. By choosing local, seasonal, and primarily vegetarian food, Calgarians can reduce their overall ecological footprint.
Water Services	 Provides water services, and collaborates to implement low-impact development strategies (e.g. rain gardens) in support of the Stormwater Management Strategy. Working on Calgary Water Reuse Strategy that includes recommendations to the province to allow for rainwater harvesting for non-food production irrigation for multi-family, commercial and industrial irrigation.
Parks	 Provides tangible support to community garden and orchard initiatives e.g. land, irrigation, education and development support. Provides compost/mulch to community gardens. Community orchards pilot provides fruit trees in local parks which will be harvested by citizens.
Infrastructure & Information Services (IIS)	 Encourages food production opportunities through building and infrastructure design. Exploring opportunities to include food issues in building operations. For example: the sources of food (where it comes from) and how we operate our food services in buildings (container options, managing food waste, etc). IIS has a role in geospatial information, particularly, in providing the services of mapping where food comes from and how it gets here.

APPENDIX III: Calgary EATS! Action Plan Status Report

The following section demonstrates the progress that has been made to the Action Plan items since 2012.

	Action	Lead	Stakeholders	Status
Regulation, Legislation & Advocacy	1. Collaborate with Alberta Agriculture & Rural Development (AARD) on the Local Food System Needs Assessment Project, associated policy issues and directions. Include: a. Streamline policy and regulations; b. Communication and awareness of regulations.	1. Government Sector-AARD and Alberta Health Services (AHS)	1. Calgary EATS initiative, City of Calgary, etc.	1. Collaborating with Alberta Agriculture on Local Food Opportunities Assessment in the Calgary region
	2. Review City of Calgary bylaws to determine if amendments would be required for alignment to the food vision and principles.	2. Government Sector-City of Calgary: relevant business unit	Multiple and dependent upon bylaw under review e.g. citizens, Calgary Horticultural Society, Calgary Humane Society etc.	2. Incomplete
Planning & Land Use	Development of a Food Policy and associated strategies as part of the Calgary Regional Partnership (CRP) and Calgary Metropolitan Plan to influence development at the regional level.	1. Government Sector – CRP	Calgary EATS initiative, City of Calgary, etc.	Regional Food Strategy in progress with the Calgary Regional Partnership.
	 2. Embed the food system vision and principles as policies and strategies within growth management, land use planning and design through: a. considerations in any future annexation proposed; b. potential consideration within the Framework for Growth and Change; c. Land use policy plans, guidance and studies; d. Outline plan, development permit and building permit applications. 	2. Government Sector-City of Calgary: a. Land Use Planning & Policy (LUPP) b. Directors for Integrated Growth Committee (DIGC) c. LUPP d. Development & Building Approvals (DBA)	2. Office of Sustain- ability (OS), Calgary EATS initiative and usual appropriate stakeholders for the relevant process	2. Incomplete
	3. Continued support for the Community Garden Program, Orchard Pilot and urban agriculture at both a city-wide and community level assisted by completion of Phase 2 of the land Inventory.	3. Government Sector – City of Calgary: Parks	3. Calgary Horticultural Society, Community Associations	3. In progress
	4. The Corporate Real Estate Portfolio Review will provide a means of identifying Cityowned land that may be suitable and available for urban agriculture.	4. Government Sector – The City of Calgary – OS, Corporate Properties & Buildings (CPB)	4. All land- stewarded business units	4. Incomplete
	5. Explore land-share opportunities ranging from private yards/gardens to large-scale land-owners.	5. Dependent upon sites e.g. yard land share could be lead by Community Sector (community groups)	5. Multiple, dependent upon sites	5. SPIN farmers connecting with private yards (in progress)
	Explore co-location opportunities and strategies to increase efficiencies and use of resources e.g. co-locating food processing facilities or industrial site waste heat generator co-locates by greenhouse development:	6. a. Government Sector – City of Calgary: Office of Land Servicing & Housing (OLSH)	6. Multiple	6. Incomplete
	 a. Commencement of site design and appropriate land use to enable colocation; b. Fostering collaboration between tenants and landowners in suitable co-location 	D. Landowners		
	Legislation & Advocacy	Legislation & Advocacy Rural Development (AARD) on the Local Food System Needs Assessment Project, associated policy issues and directions. Include: a. Streamline policy and regulations; b. Communication and awareness of regulations. 2. Review City of Calgary bylaws to determine if amendments would be required for alignment to the food vision and principles. Planning & Land Use Planning & Land Use 1. Development of a Food Policy and associated strategies as part of the Calgary Regional Partnership (CRP) and Calgary Metropolitan Plan to influence development at the regional level. 2. Embed the food system vision and principles as policies and strategies within growth management, land use planning and design through: a. considerations in any future annexation proposed; b. potential consideration within the Framework for Growth and Change; c. Land use policy plans, guidance and studies; d. Outline plan, development permit and building permit applications. 3. Continued support for the Community Garden Program, Orchard Pilot and urban agriculture at both a city-wide and community level assisted by completion of Phase 2 of the land Inventory. 4. The Corporate Real Estate Portfolio Review will provide a means of identifying City-owned land that may be suitable and available for urban agriculture. 5. Explore land-share opportunities ranging from private yards/gardens to large-scale land-owners. 6. Explore co-location opportunities and strategies to increase efficiencies and use of resources e.g. co-locating food processing facilities or industrial site waste heat generator co-locates by greenhouse development: a. Commencement of site design and appropriate land use to enable co-location; b. Fostering collaboration between tenants	Rural Development (AARD) on the Local Food System Needs Assessment Project, associated policy issues and directions. Include: a. Streamline policy and regulations; b. Communication and awareness of regulations. 2. Review City of Calgary bylaws to determine if amendments would be required for alignment to the food vision and principles. Planning & Land Use 1. Development of a Food Policy and associated strategies as part of the Calgary Regional Partnership (CRP) and Calgary Metropolitan Plan to influence development at the regional level. 2. Embed the food system vision and principles as policies and strategies within growth management, land use planning and design through: a. considerations in any future annexation proposed; b. potential consideration within the Framework for Growth and Change; c. Land use policy plans, guidance and studies; d. Outline plan, development permit and building permit applications. 3. Continued support for the Community Garden Program, Orchard Pilot and urban agriculture at both a city-wide and community level assisted by completion of Phase 2 of the land Inventory. 4. The Corporate Real Estate Portfolio Review will provide a means of identifying City-owned land that may be suitable and available for urban agriculture. 5. Explore land-share opportunities and strategies to increase efficiencies and use of resources e.g. co-locating food processing facilities or industrial site waste heat generator co-locates by greenhouse development: a. Commencement of site design and appropriate land use to enable co-location; b. Fostering collaboration between tenants and landowners in suitable co-location b. Landowners b. Landowners b. Government Sector—City of Calgary: Office of land Services & Buildings (CPB) 5. Dependent upon sites e.g., yard land share could be lead by Community Sector (community Sector (co	Legislation & Advocacy of Calgary Meeds Assessment Project, associated policy issues and directions. Include: a. Streamline policy and regulations; b. Communication and awareness of regulations or alignment to the food vision and principles. 2. Review City of Calgary bylaws to determine if amendments would be required for alignment to the food vision and principles. 2. Review City of Calgary bylaws to determine if amendments would be required for Calgary; relevant business unit 2. Review City of Calgary bylaws to determine if amendments would be required for Calgary; relevant business unit 3. Development of a Food Policy and associated strategies as part of the Calgary Regional Partnership (CRP) and Calgary Metropolitan Plan to influence development at the regional level. 2. Embed the food system vision and principles as policies and strategies within growth management, land use planning and design through: a. Considerations in any future anewaton proposed; b. potential consideration within the Framework for Growth and Change; c. Land use policy plans, guidance and studies; d. Outline plan, development permit and building permit applications. 3. Continued support for the Community Garden Program, Orchard fillot and urban agriculture at both a city-wide and community level assisted by completion of Phase 2 of the land Inventory. 4. The Corporate Real Estate Portfolic Review will provide a means of identifying City-owned land that may be suitable and available for urban agriculture. 5. Explore land-share opport unities ranging from private yards/gardens to large-scale land-owners. 5. Explore co-location opportunities and strategies to increase efficiencies and use of resources e.g. co-location food progression of the community Sector (community Sector (co

APPENDIX III: Calgary EATS! Action Plan Status Report Cont.

		Action	Lead	Stakeholders	Status
Potential Area for Intervention	Logistics and Transportation	1. Explore and implement Food Hub(s): a. Raise awareness, provide best practice examples, coordinate stakeholders; b. Use AARD inventory of local brokers and distribution companies to identify potential partnerships; c. Use open source logistics mapping to identify suitable sites within the region (large scale as well as community halls etc), routes and distribution networks.	Government Sector- CRP & AARD, Market Sector and Community Sector	1. CRP members, Rocky View County and Foothills MD, AARD producers, processors, distributors, retail food service purchasers (restaurants, grocery stores etc)	1. Completed by Alberta Agriculture and Rural Development (Explore Local Initiative) and Hillhurst Sunnyside Community Food Program.
		 Increase physical accessibility to food retail (reduce prevalence of food deserts): Map access to grocery stores near walkable streets and primary transit service for households with no vehicle; Use this with existing mapping to identify food deserts and prioritise areas of need; Develop a strategy to attract appropriate food retail outlets to areas of need; Design new developments to consider physical accessibility to food considering all modes of travel: driving, taxis, walking, cycling and transit. 	2. Government Sector – City of Calgary: Transportation, LUPP & OS	2. Transportation, LUPP, Business Revitalization Zones (BRZ), Federation of Calgary Communities (FCC), Family and Community Support Services (FCSS), Poverty Reduction Team, Food Retail Business, Community Organisations (e.g. YWCA), OLSH Affordable Housing	2. Food Accessibility mapped (SAIT Capstone Project)
		3. Locate urban agriculture (particularly community gardens and allotment gardens) in close proximity to transit and users (walkability). Review the parking need and impact.	3. Government Sector – City of Calgary: Parks & OS	3. Citizens, community organizations, etc	3. Incomplete
	Environment	Map the ecological footprint of our local food system built upon mapping at the source, supplier, retailer or restaurant level.	Industry/ Market and Community Food Sector	Permitting, water, communities, potential markets, technology firms	1. Incomplete
		 Explore alternative fuel sources e.g. bio- fuels, electric/hybrid, right-sized vehicles etc for food distribution. 	Market and Community Food Sector and Distributors	2. Community Sectors, City of Calgary – Environmental & Safety Management (ESM) Greenfleet	2. Incomplete
		Pilot the development of greenhouse technology in Calgary using sustainable methods such as waste heat.	3. Market and Community Food Sector and Institutions	3. Multiple	3. In progress (SAIT)
		Review practices within Calgary that impact environmentally sustainable food production as necessary and appropriate.	4. Government Sector: City of Calgary	4. Relevant City of Calgary business units	4. Incomplete
	Economic Development	Coordinate and provide information about the availability of shared facilities for processing (equipment, space, transportation, labour, labelling etc.).	Government Sector: Provincial, AARD	AARD, Market Food Sector and Community Food Sector stakeholders	1. Incomplete
		2. Skill building and knowledge sharing as part of green collar employment. Explore and expand opportunities for social enterprise and community economic development.	2. Community Food Sector	2. Community Food Sector stakeholders e.g. Momentum, Trico Foundation, social agencies, YWCA, EthniCity catering and the Retail Council of Canada.	2. In progress (Momentum, REAP Business Association)
		 Develop a Food Trust Fund and explore vouchers or Calgary dollars to redistribute dollars to food programming and support training school cooks, retrofitting kitchens and developing sustainable foods sourcing and menus (e.g. Jamie Oliver's School Dinners). 	3. Community Food Sector	3. Community Food Sector stakeholders e.g. Momentum, Trico Foundation, social agencies, YWCA, EthniCity catering and the Retail Council of Canada.	3. Incomplete

$\underline{APPENDIX~III:}~Calgary~EATS!~Action~Plan~Status~Report~{\it Cont.}$

		Action	Lead	Stakeholders	Status
	Community Programs	Embed the food system vision and principles and food security as a constellation within the Poverty Reduction Strategy.	1.Poverty Reduction Initiative: City of Calgary and United Way	All poverty reduction stakeholders and access and preparation food system stakeholders	1. In progress
		2. Support and expand kitchen provision, skill-building community kitchen programs and community gardens/rooftop gardens as part of affordable and attainable housing or housing support.	2. Community Food Sector	Community food sector stakeholders and City of Calgary.	2. In progress
		3. Institutions collaborate on the development of a Farm to Cafeteria/ School etc approach in Calgary.	3. Institutions and Government Sectors	3. Multiple	3. Incomplete
		4. Explore issues, opportunities and actions at a community level for supporting the food vision and principles.	4. Calgary EATS initiative, and Community Food Sector	4. Federation of Calgary Communities, community associations and citizens	4. Incomplete
ention	Education Programs	1. Continued support by the Calgary Board of Education (CBE) for embedding environmental stewardship and associated programs such as edible gardens within curriculum delivery to an increased number of schools.	Government Sector Alberta Education and Calgary Board of Education (CBE)	1. Multiple	1. In progress
a for Inter∨		2. Mapping of school food gardens, schools with food education programs and those that use produce in school lunches.	Institutional Sector, Calgary EATS initiative and Government Sector – CBE, AHS	2. Multiple	2. In progress
Potential Area for Intervention		3. Education program on seasonal local food nutrition etc e.g. develop a Calgary Seasonal Food Calendar to educate people about what is 'in-season' locally – educate consumers to ask questions of chefs, cafeterias, grocery stores etc (ongoing).	3. Calgary EATS initiative	3. Multiple	3. Incomplete
		4. City-wide education programs and campaigns on food waste diversion, composting and associated energy and water use. Both City of Calgary and consistent support funding for partner programs e.g. Green Calgary. To increase the programs to collect data on changing norms.	4. Community Sector – Green Calgary and Government Sector – City of Calgary: W&RS	4. Multiple	4. In progress (City of Calgary Waste and Recycling Services and Green Calgary)
		5. 3rd party certification (e.g. LEAF) for restaurants and food service providers	5. Market and Community Food Sector	5. Government sector and citizens	5. In progress
		Expand labelling and marketing material associated with sustainable food sources e.g. local marketing material in grocery stores.	6. Market Food Sector and AARD	Government sector and citizens	6. In progress (The Localize Project)
		7. Collaborate with the universities and other post-secondary institutions for opportunities for on-going data collection, research and actions related to the food system assessment and recommended actions.	7. Institutional Sector	7. Calgary EATS initiative, Government Sector	7. In progress (SAIT)

APPENDIX III: Calgary EATS! Action Plan Status Report Cont.

		Action	Lead	Stakeholders	Status
for Intervention	Governance	1. Ensure the continuation of the Calgary EATS initiative to steward the implementation of the action plan in the context of the imagineCALGARY partnership and the constellation model. Draft revised terms of reference and review of membership based on moving to an implementation mandate.	1.Calgary EATS initiative	All stakeholders within the food system	1. Complete
Potential Area		2. Develop and manage a web-based information source to share the findings of the food assessment and provide resources to the public.	2. Calgary EATS initiative	2. Government Sector – City of Calgary	2. In progress