



FOOD SECURE

A STRATEGY FOR THE CALGARY REGION

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Executive Summary

1

Executive Summary

Food Secure: A Strategy for the Calgary Region is an initiative of the Calgary Regional Partnership (CRP). The project's main goal is to collaboratively build a strategy that ensures the **CALGARY REGION** benefits from reliable access to food as it grows to over three million people by 2076.

While municipalities don't necessarily have a legislated responsibility for **FOOD SECURITY**, the inclusion of policy direction in the *Calgary Metropolitan Plan* (CMP) illustrates the desire of CRP member municipalities to take a proactive approach to this important issue. That being said, the purpose of the *Food Secure* Strategy is to act as a starting point and to initiate discussion around food security in the Calgary Region. It is acknowledged that the CRP and our member municipalities do not have all of the answers as it relates to this issue, therefore, this strategy will remain a living document that will change and be amended as the discussion on food in the Region evolves.

Today, it takes over 5.2 million pounds (or 2.4 million kg) of food per day to feed the 1.3 million people who live and eat in the Calgary Region.¹ To think about how this population will be fed tomorrow, the issue of food security will be approached from a **FOOD SYSTEMS** lens. The strategy will move towards systems-based solutions that connect regional assets, needs, and policies that can together develop resilient food systems that work.

The strategy is the result of a collaborative approach that draws on local ideas and knowledge of many regional food experts. *Food Secure* is structured around a set of high level-principles which are supported by policies, and action-oriented direction to help inform decisions at the grassroots, municipal, and regional levels. The intention is to empower communities to collectively increase food security in our Region by focusing on the positive cumulative effects that occur when people work together.

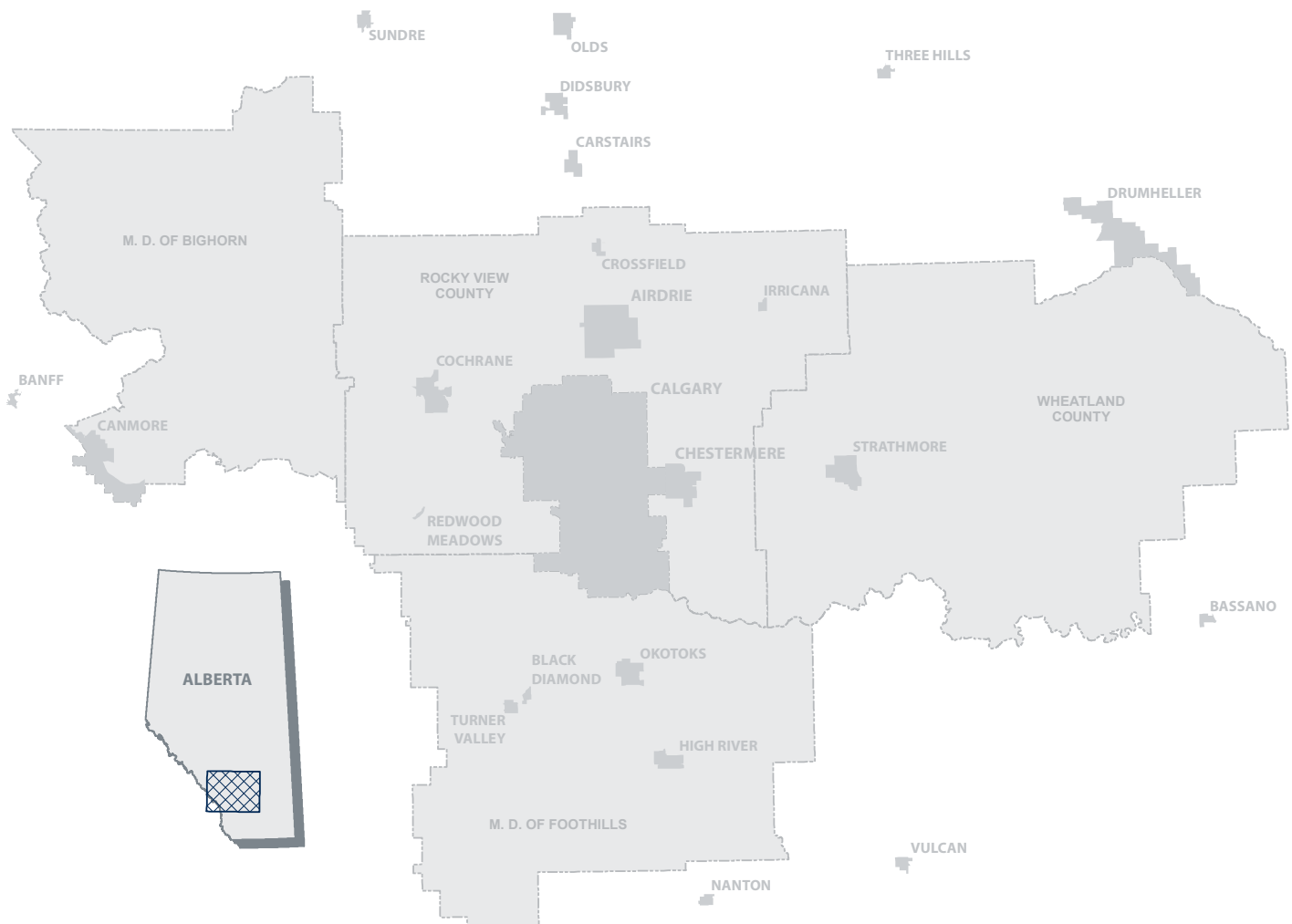
¹Pierce, C., *Eating Local: Defining the Local Foodshed to Meet Local Food Goals*. (2014), 40.



The Calgary Regional Partnership

The CRP is the regional planning collaborative for the Calgary area. Formed in 1999, this voluntary network of municipalities recognized that the status quo for managing growth was unsustainable and that more could be achieved by working together as partners.

Today, the Partnership is represented by municipalities in the Calgary Region who continue to work towards the shared vision of living in balance with a healthy environment in enriched communities, with sustainable infrastructure and a prosperous economy.



Map of the Calgary Region

At the core of the CRP is a visionary document, the CMP, adopted in its current form in 2014. The CMP is principle based and policy driven and consists of five high level principle statements which direct the work that the CRP does.

CMP Principles include:

1. Protecting the natural environment and watershed.
2. Fostering our economic vitality.
3. Accommodating growth in a more compact settlement pattern.
4. Integrating efficient regional infrastructure systems.
5. Supported through a regional governance approach.

Each principle is supported by a number of action-oriented policies that are highly integrated and aim to help municipalities in the Region work towards the intent of the principles over the 50-year time-frame of the document.

In the 2012 update of the CMP, food security was identified as a priority area in Principle 3 and a new policy was introduced under the subheading: "Create sustainable and resilient communities."

Policy 3.b.9 *Food security in a growing region* states that:

CRP and member municipalities recognize the need for strategies and collaborative actions to ensure continued access to safe, affordable and sustainably produced food for the region's population.

In 2014, as a part of the CRP's four-year strategic planning process, CRP administration highlighted the importance of regional food security by proposing the *Food Secure Strategy*. During the spring of 2015, the CRP Board approved the strategic plan, business plan, and work program for the strategy, setting the direction of the project work.

The *Food Secure Strategy* is the first step in understanding the food system in the Calgary Region as it sets a long-term vision (i.e. 50+ years) through a series of six aspirational goals. The goals are supported by catalyzing actions and indicators intended to help measure the success of the work being done. Finally, the strategy identifies food related gaps, which in many instances, will form the starting point for the work that needs to be completed. It is important to note that the *Food Secure Strategy* is an initial discussion of regional food security and many of the recommendations are intended to be long term and may not occur for several years.

The CRP will continue to act in a convening and incubating capacity for the work that is emerging out of the *Food Secure Strategy*, but cannot do it alone. While food security is part of the CRP's core mandate, the success of the strategy will lie with the collective and collaborative spirit of those stakeholders who are already involved in building food security across the Calgary Region today and in the future.

Food Security in the Calgary Region

2

Understanding Food Security

According to the UN's Food and Agriculture Organization (FAO),

“Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.”²

The global challenges linked to growing food insecurity, agriculture-related environmental degradation, increased corporate control, and the overall decline of community resilience are being met with a mounting interest in developing more sustainable, community-based food systems.³ In response to this, alternatives to mainstream food systems are emerging across North America, where organizations and government agencies are devoting more resources to community-based and regional food initiatives in an effort to get in front of the aforementioned issues, and Alberta is no different.⁴ In 2012, the Calgary Food Committee (now the Calgary EATS! Stewardship Group) published *Calgary's Food Assessment and Action Plan*, which aimed to “create a sustainable and resilient food system for the Calgary Region.”⁵ Additionally, this report identified that the CRP “presents an opportunity to collaborate with the regional municipal districts on a shared vision for a sustainable food system.”⁶ Much of the work completed by the Calgary EATS! Stewardship Group is focused on actions within the City of Calgary. The *Food Secure Strategy* builds on this existing work by applying a regional lens to the existing perspective – driving the challenges and opportunities related to increasing food security beyond the borders of the City of Calgary.

THE CONTEXT

Food is an important part of our culture, landscapes, and the health of citizens living in the Calgary Region. In Alberta, food and agriculture contribute to the economy and support healthy lifestyles while playing a significant societal role in connecting people to one another over shared meals and celebrations.

The Calgary Region is rich with some of the best agricultural lands in Alberta, but is also faced with tremendous urban growth pressures which has traditionally consumed agricultural lands within close proximity to urban centers.

The Region's population is growing rapidly. By 2076 it is anticipated that over three million residents will call the Calgary Region home.⁷ With a current population of 1.3 million citizens, this anticipated growth will have significant impact on the food system and will require stakeholders to reconsider how food is grown, distributed, consumed, and how waste is managed.

Global changes in climate patterns have further complicated the local food system as the Calgary Region has experienced both severe flood events and prolonged drought in recent years.

Although there are challenges arising around food security in the Calgary Region, there are also tremendous opportunities. The Calgary Region is one of the sunniest regions in Canada, is an incubator for renewable energy, and thrives with a collaborative spirit to initiate change.

Building food security does not happen by accident. An increase in regional food security is the result of a culmination of grass roots activities, tactful and actionable policy, and a political will to

2 Food and Agriculture Organization, *The State of Food Insecurity in the World 2001* (2002), <http://www.fao.org/docrep/005/y4671e/y4671e06.htm>.

3 Anderson et. al., *Working together to build cooperative food systems* (2014), 1.

4 Anderson and McLachlan, *Community-Based Regional Food Distribution Initiatives A Cross-Case Analysis* (2012), 1

5 The Calgary Food Committee; Serecon Management Consulting Inc.; Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 2.

6 The Calgary Food Committee; Serecon Management Consulting Inc.; Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 76.

7 Calgary Regional Partnership, *Calgary Metropolitan Plan* (2014), 10.

influence the food conversation.

Through the development of the *Food Secure Strategy* and emerging out of the consultation process, several underlying 'truths' were identified.

Key assumptions made by the project team include:

1. The food system requires a comprehensive approach. Changes in one area of the system will impact other areas.
2. The regional food system should be considered an 'open system' that can be influenced by (often unpredictable) changes at the local, provincial, national, and global level.
3. The food system is complex. No actor is singularly responsible for influencing the food system, therefore a collaborative approach is required.

FOOD SYSTEMS

The *Food Secure Strategy* approaches food security from a systems perspective – understanding the elements of the food system and, more critically the interconnectedness between them. In *The Art of Systems Thinking*, O'Connor and McDermott state that "a collection of parts that do not connect is not a system. It is a heap."⁸

In the most basic sense, systems theory suggests that problems cannot be approached independently. When this perspective is applied to the food system, several aspects; from food production and the inputs that support growing food, to household consumption to the waste streams that follow consumption need to be considered.

According to the Calgary EATS! Stewardship Group, the general components of this food system include:⁹

- **Production:** planting, growing, raising and harvesting of food, including urban and rural agriculture.
- **Processing:** the process of modifying food to create a different product.
- **Distribution:** the distribution, storage, selling, and purchasing of food.
- **Access:** the accessibility and affordability of food.
- **Consumption:** the act of consuming and enjoying food.
- **Food Waste Recovery:** the diversion, management and utilization of food waste.

The diagram to the right illustrates how these components are connected.

⁸O'Connor, J. and McDermott, *The Art of Systems Thinking* (Thorsons Publishers, 1997), 3.

⁹The Calgary Food Committee; Serecon Management Consulting Inc.; Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 16.

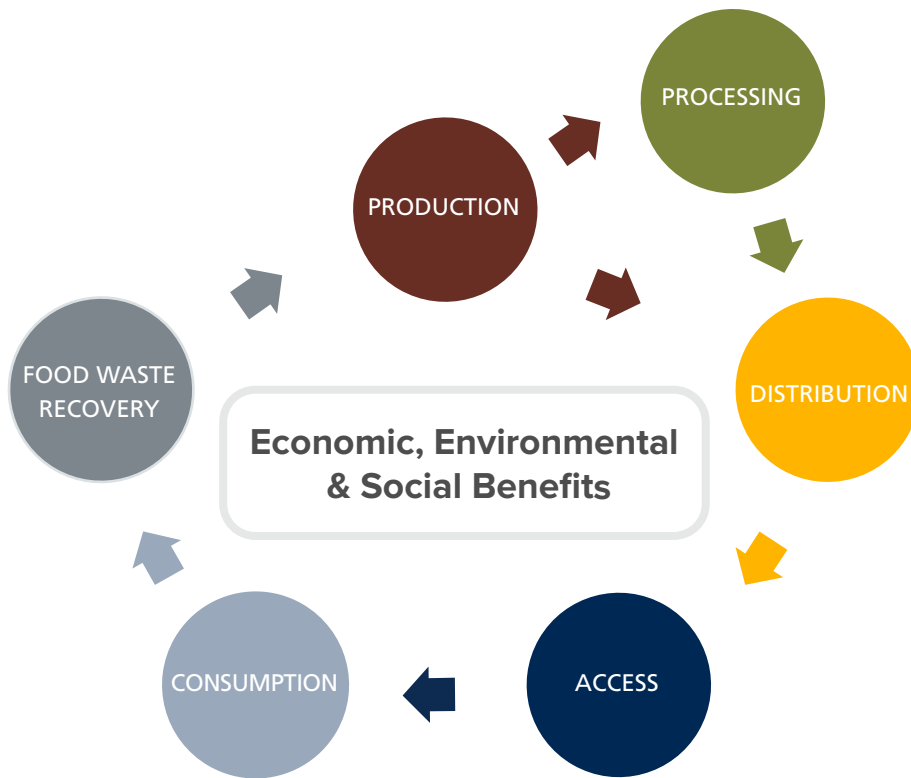


Diagram of the Food System from Calgary EATS! ¹⁰

There are a variety of interconnected elements involved in the food system that span many scales. A successful, long-lasting strategy for food security will incorporate systems-based solutions that find strength in the complex nature of food systems.¹¹ With a greater number of meaningful connections between food system elements, policies, and people, there will be more opportunity to build feedback and dialogue into the food system. In systems theory, these connections are called 'balancing feedback loops', and they build self-correction into the system.¹² By sharing information among these interconnections, a food system can better handle shocks or disruptions. A food system connecting as many resources as possible through good communication is a more resilient food system capable of supporting a more 'food secure' future.¹³

¹⁰ The Calgary Food Committee; Serecon Management Consulting Inc.; Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 16.

¹¹ Ackerman-Liest, Philip, *Rebuilding the Foodshed: How to create local, sustainable, and secure food systems* (Post Carbon Institute: Santa Rosa, 2013), 31.

¹² Meadows, Donella, *Thinking in Systems: A primer* (Chelsea Green Publishing: White River Junction VT, 2008), 155.

¹³ Ackerman-Liest, Philip, *Rebuilding the Foodshed: How to create local, sustainable, and secure food systems* (Post Carbon Institute: Santa Rosa, 2013), 233.

A Resilient Food System

RESILIENCY

When we refer to **RESILIENCY** and building resiliency in the food system, we are referring to the actions that will increase the capacity, flexibility, and adaptability of the overall food system to tolerate change without disrupting the flow of food. Change could be as simple as consumer behaviours or as severe as natural disasters. In both examples, the food system could be disrupted and require a fundamental shift to regain balance.

There are several key levers or points in the food system that when operationalized can have significant impact around increasing regional food system resiliency, including:

- • • • **Building diversity across the sector:** Consider biological, landscape, cultural, governance, social, and economic diversity and responsibility to and across all sectors.
- • • • **Understanding and managing connections outside of the regional perspective:** The regional food system is interconnected with local, provincial, national, and global food systems.
- • • • **Encouraging learning and innovation:** Consider the impact of grass roots movements, enabling environments for innovation, and the continued dialogue between stakeholders.
- • • • **Managing connections between scales:** The regional food system is connected to the provincial, national and global food systems. This can help our regional system respond to change, but if too dependent on other scales, shocks to the global system can have significant negative impacts in the Calgary Region.
- • • • **Recognizing the importance of ecosystem services:** **ECOSYSTEM SERVICES**, such as the provision of fresh water and air, responsibility to the integrity of the land and the food it can produce, regulation of the climate, and habitat for wildlife help to sustain life and play a significant role in sustaining the regional food system. Recognition of these important services, and their intrinsic worth, can help inform decision-making.
- • • • **Building connections and participation:** The greater the number of active and knowledgeable actors in the regional food system, the stronger the relationships, collaboration opportunities and local food knowledge will exist in the Calgary Region, encouraging food system resilience over time.

By considering these elements as the regional food system evolves, the Calgary Region will be able to increasingly weather local and global shocks, while working towards the policy direction set out in both the CMP and this strategy.

The Food System In The Calgary Region

Food security can be seen as a comprehensive indicator of the health of a food system.¹⁴ In the Calgary Region or any other, it takes a healthy food system to provide enough safe and nutritious food for its population.

An unhealthy, or **FOOD INSECURE** system, would be characterized by uneven food access, a struggling farm economy, uncertain outlooks on farm productivity, and dangerous trends in diet-related illness such as obesity and diabetes. Working collaboratively to develop a regional food security strategy can further link the concepts of food security and food system health.

Food security can be assessed at different scales and understood in different ways, and its measurement will vary depending on the scale that is focused on. While they complement one another, food security solutions at the regional scale differ from strategies for the household level. On one end, solutions may focus on millions of pounds of food growth and regional land use patterns, and on the other end, solutions may focus on walking-distance to grocery stores, food access, or cooking skills.

At the regional scale, the primary consideration for food security will be to ensure that all people in the Calgary Region have physical, social and economic access to safe and nutritious food every day to support active and healthy lives.



PHYSICAL ACCESS

Physical access to food can vary from the regional to the household scale. It can be the land available to produce food or the distance an individual has to travel to buy food. Physical access trends in the Calgary Region, as identified by the Calgary EATS! report, include growth management and the environmental systems.¹⁵



SOCIAL ACCESS

Social access to food is most vulnerable at the household level, but can also have an effect on the regional scale. The social access trends found in the Calgary EATS! report speak to demographic, food safety, and food education awareness shifts in the current system.¹⁶



ECONOMIC ACCESS

Economic access, like physical access, affects both the regional and household scale of food security, and is affected by the affordability of and the demand for food. The Calgary EATS! report found that trends in economic access are linked to the economy and demand for food.¹⁷

¹⁴ Ackerman-Liest, Philip, *Rebuilding the Foodshed: How to create local, sustainable, and secure food systems* (Post Carbon Institute: Santa Rosa, 2013), 17.

¹⁵ The City of Calgary, *Calgary Eats! A Food System Assessment & Action Plan for Calgary* (2012).

¹⁶ The City of Calgary, *Calgary Eats! A Food System Assessment & Action Plan for Calgary* (2012).

¹⁷ The City of Calgary, *Calgary Eats! A Food System Assessment & Action Plan for Calgary* (2012).

IMAGINECALGARY AND CALGARY EATS!

ImagineCALGARY, a long-range sustainability plan that outlines 114 sustainability targets for the City of Calgary as it grows into the future, includes six targets that are directly related to the management of food.

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

These targets helped to inform the work of Calgary EATS!, a key partner organization that is already working within the Calgary Region on food security. They are an arm's length organization from the City of Calgary that operates under the direction of the *Food System Assessment and Action Plan* and remains an active Stewardship Group. The *Food System Assessment and Action Plan* was approved by Calgary City Council in 2012. The document looks at the existing local food system while examining the food issues that face the City. The associated Stewardship Group is made up of active representatives from the local food system including the CRP. The underlying mandate of the group is to build food resiliency for Calgary and the surrounding areas. An update was completed by the Stewardship Group and presented to Calgary Council in 2014.¹⁸

The Calgary EATS! *Food System Assessment and Action Plan* looks to the support of the CRP in several policy areas, which include:

- Exploring partnership opportunities to collaborate with the regional municipal districts on a shared vision for a sustainable food system.
- To work together (CRP, Calgary EATS! and City of Edmonton) on lobbying activities with the provincial government.
- The development of a food policy and associated strategies to influence development at the regional level.
- Collaborate to develop food policy and other strategies to work towards protection of agricultural lands to encourage a sustainable food system in a range of policy documents including local area plans and regional policies.
- Explore opportunities to co-locate synergistic agricultural related businesses in the areas of processing, distribution hubs, and **FOOD HUBS**.

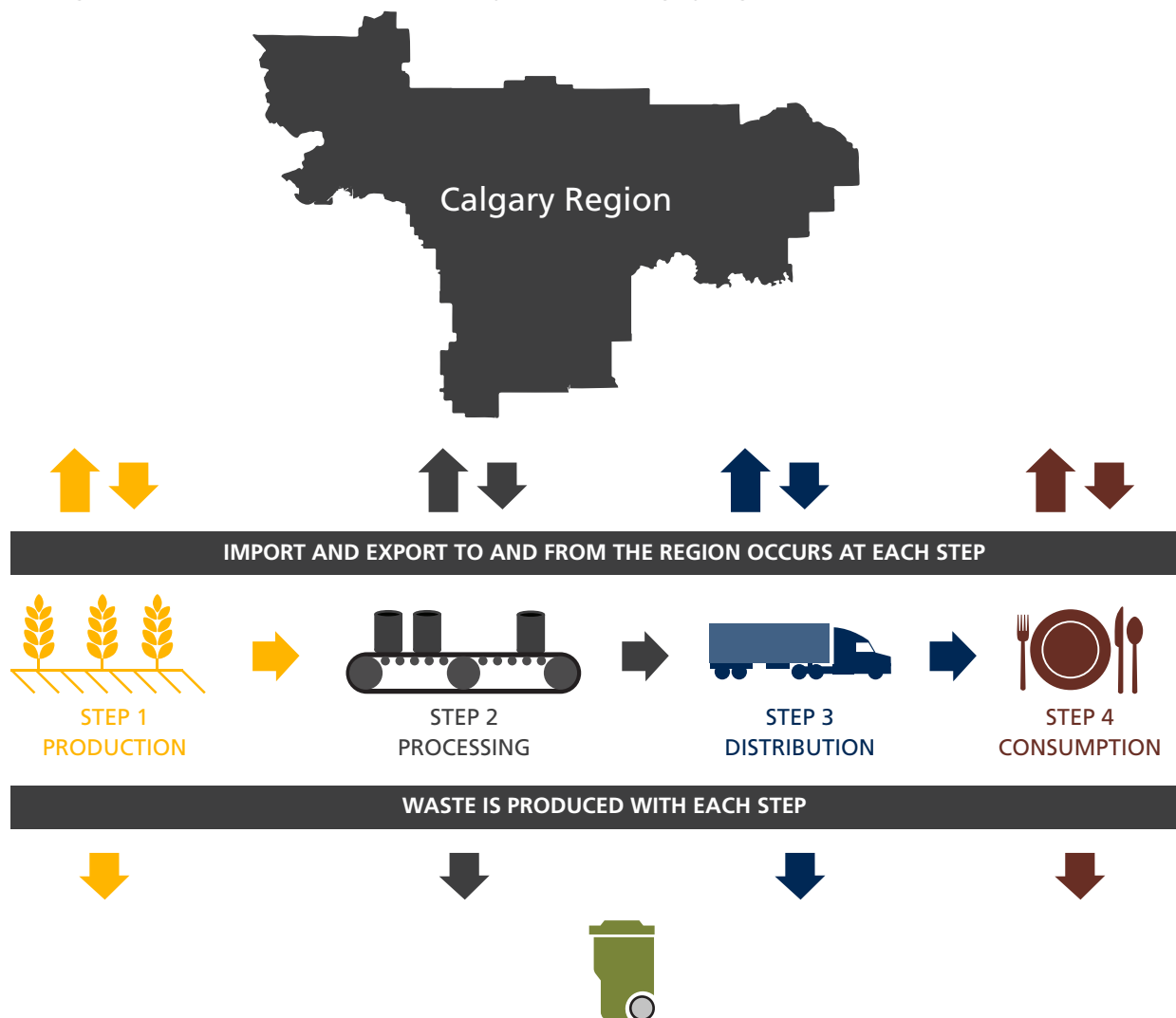
¹⁸ Calgary Eats!, "The Plan" (2012), <http://www.calgary.ca/CA/cmo/Pages/Calgary-Food-System-Assessment-and-Action-Plan.aspx>.

Several other partners have emerged through the *Food Secure* project work, including the Government of Alberta who are actively working in the areas of policy development and data collection.

The purpose of Food Secure is not to "reinvent" work that has already been completed or is ongoing, but instead to explore partnership opportunities and areas where we can build on the progress and successes of other individuals and organizations.

Generally speaking, the food discussion at the urban municipal level is in its infancy as municipalities are still trying to understand the complexity and intricacies of the food system. It is rare that they will have staff or resources dedicated to the area of food, however, there is a growing trend for municipalities to partner with subject matter experts, resulting in the inclusion of food-related policies into local planning documents.

The diagram below further illustrates the food system in the Calgary Region.

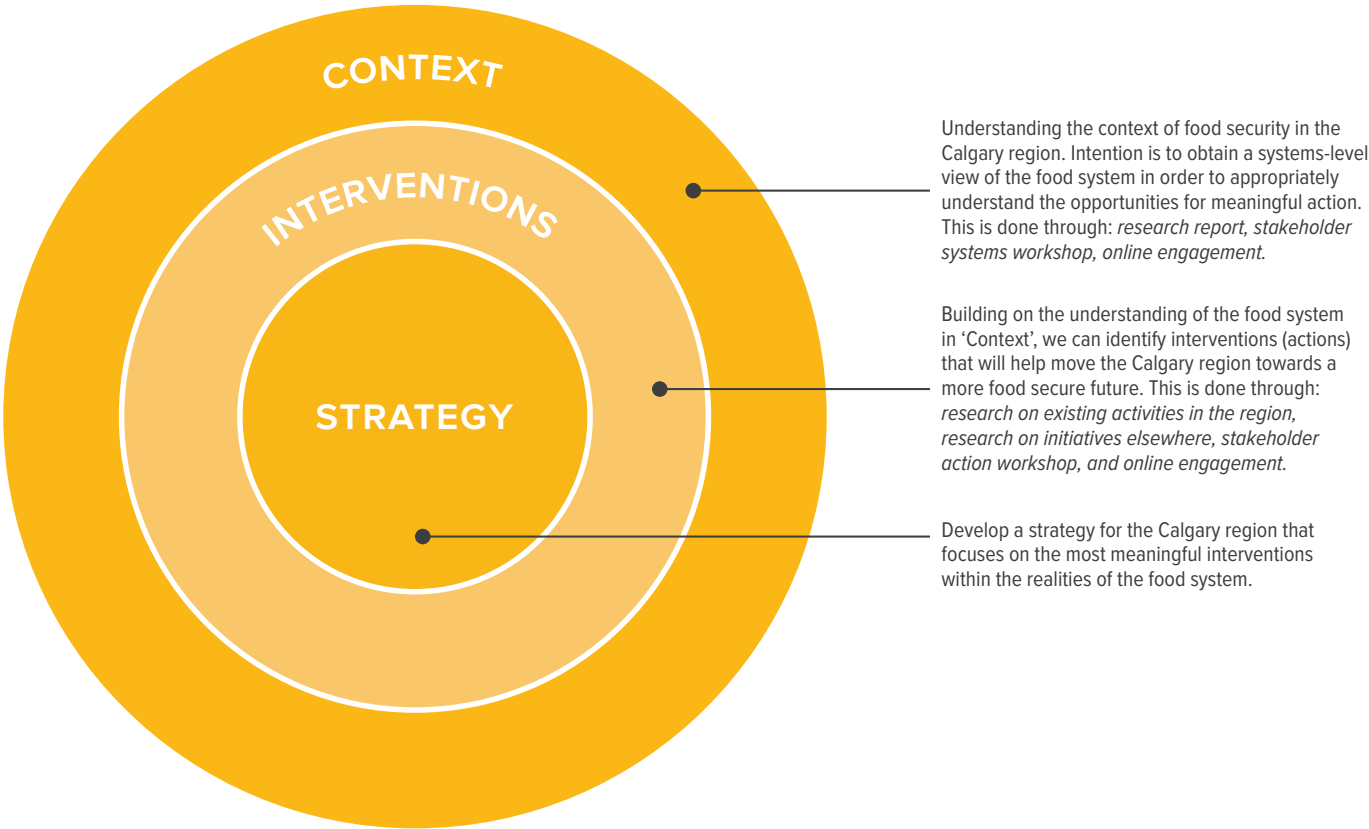


Our Process

3

Our Process

The process to develop the *Food Secure Strategy* was focused on three key steps: **context**, **interventions**, and **strategy development**. Each step narrowed the focus from a broad understanding of food security in the Region down to the direction found in this strategy. The diagram below highlights the focus of each step in the process.



Engaging Stakeholders in the Region

The CRP's *Food Secure* Strategy was informed by an extensive engagement process that was conducted over a three-month period in spring 2015. Stakeholders were divided into three key groups: deliberate, ideate, and validate.

- The **deliberate group** consisted of six members. The group represented the regional food experts whose primary roles were to help assist in stakeholder identification, provide high level direction, structure project goals, and review the finalized *Food Secure* Strategy.
- The **ideate group** was made up of over 70 stakeholders from various sectors of the food system. This group included food producers and processors, distribution experts, educators, advocates, retailers, municipal representatives, and waste management experts. The ideate group participated in two focused workshops - the first covering the broad context of the regional food system and the second focusing on actions and outcomes.
- The **validate group** was made up of approximately 150 stakeholders who were asked to reflect on the results of the stakeholder workshops, prioritizing ideas and filling in any gaps. This group was engaged via online questionnaires and was made up of food professionals, municipal representatives, politicians, food advocates and the general public.

The project team also attended several food events in the Region to collect feedback from stakeholders, including The Cochrane Producer's Tea and the Calgary EATS! annual event. The graphic below illustrates highlights of the engagement process.

Food Secure Engagement at a Glance



Vision:

**Abundant, locally-
produced food
that feeds the
Calgary Region.**



Goals

4

Goals

The Goals that form the basis of *Food Secure* provide the direction for how we want our food system to take shape over time.

The goals include:

1. The Calgary Region is a leader in food planning and governance.
2. People are aware of the connection between the food they eat and where it comes from.
3. All residents have access to safe, affordable, and healthy food.
4. The Calgary Region has a diverse and collaborative regional food economy.
5. The Calgary Region efficiently and sustainably produces and processes a variety of food that sustains its population.
6. Organic and non-organic food waste in the Calgary Region is diverted.

The Goals were distilled from the community consultation process and feedback received from stakeholders, the direction from the CMP, and partnering organizations.

Each goal includes:

- **Context statements** to illustrate why the goal has been identified as important.
- **Long term strategies** to be worked towards over time.
- **Catalyzing actions** which are intended to be ‘quick wins’ to help achieve the goal.
- **Indicators** to help track progress towards achieving the goal.

The remainder of this strategy is focused on the goals to build food security for the Calgary Region.





INDICATORS:

Number of enabling food policies in municipal STATUTORY PLANS.

Food related workshop and event attendance.

GOAL 1

The Calgary Region is a leader in food planning and governance.

THE CONTEXT

- There appears to be an overall lack of coordination in the food system across many scales.
- The governance of the regional food system is extremely complex; there is no single authority or level of government that is responsible.
- There is uncertainty in what role municipalities play in the food system.
- Some municipalities in the Calgary Region have food-related policies in place, however, there appears to be a disconnect between policy and plan implementation.
- According to results from stakeholder workshops, mutual understanding between the diversity of agricultural production (i.e. size, farming practices, food produced, etc.) is often lacking, as is coordinated or complementary effort.
- There is an increasing disconnect between the producer and the consumer, leading to urban policymakers not necessarily understanding the importance of food related policies and decision-making.¹⁹
- There are significant data gaps (i.e. spatial data, statistics, etc.) and a lack of general understanding of the Regional food system.

STRATEGY A: CONVENE REGIONAL FOOD STAKEHOLDERS

The complexity of the regional food system and food security requires a diverse set of stakeholders working collaboratively. Regularly connecting these stakeholders will help build relationships and coordinate action over time.

STRATEGY B: THE CALGARY REGION HAS AN ENABLING POLITICAL ENVIRONMENT TO ACHIEVE THIS STRATEGY'S VISION

Municipalities in the Region need to understand how existing local policy may limit innovative food system practices within their municipal boundaries. Further analysis is required through a multi-level government approach to understand what factors impact local food production, distribution, and consumption. These barriers then need to be broken down to enable this strategy's vision.

¹⁹ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 225.

CATALYZING ACTIONS:

- Create a spatial inventory of stakeholders and their roles within the food system at the regional, provincial, and national scale with the intention of knowing who the stakeholders are, what they are doing, and when and why they are doing it.
- Create a regional *Food Secure* working group that meets regularly to reflect and report on specific actions outlined in the report.
- Take all opportunities to incorporate *Food Secure* actions and results with other CRP programs and projects.
- Host a workshop with local decision makers in order to help them understand their role in the regional food system and what actions they can take in their municipality to assist this coordination.
- Generate periodic progress reports – reporting on *Food Secure* actions, identifying who is responsible for each action, and establishing new actions – and circulate to all regional food stakeholders.
- Share food related information, data, and resources (i.e. through the CRP Resource & Collaboration Hub, the Calgary Region Open Data site, etc.)
- Connect with local, provincial, and federal organizations in order to understand where the Regional food system fits within the national and global perspective.
- Actively involve provincial and federal stakeholders in *Food Secure* meetings and actions with the goal of influencing policy decisions.
- Municipalities in the Calgary Region assess and expand their policies and bylaws to support and/or allow for local food production and sales.
- Develop a definition for food sustainability, including provisions for sustainable agriculture.
- Support municipalities in the exploration of policy that reduces land fragmentation, reduces agricultural and land development conflicts, and focuses on greater separation between agricultural land uses and development.





INDICATORS:

Number of community gardens in the Region.

Number of farmer's markets in the Region (including number of local food vendors).

Number of food retailers that subscribe to food origin labelling programs.

Number of producers/processors direct marketing or selling in the Region.

GOAL 2

People are aware of the connection between the food they eat and where it comes from.

THE CONTEXT

- Consumers have expressed difficulty in determining where their food comes from or how it was produced.
- Consumer food choices largely revolve around convenience, which results in people making the quickest and most simple food and dietary choices regardless of their origin.²⁰
- 76% of Calgarians believe it is important to purchase local food.²¹
- 93% of Alberta households in 2012 indicated that they had purchased food produced or processed in Alberta in the past 12 months. This is an increase from 90% in 2008.²²
- Over 80% of Canadians now live in urban areas. This creates potential for an increased disconnect between land and food.²³
- Millennial's will put increasing demands on the food industry based on their environmental and cultural values as well as their global connection through technology.²⁴
- There are currently 25 grocers in the Calgary Region that subscribe to the **LOCALIZE** program that helps consumers understand how "local" their food is based on a standardized scoring system.

²⁰ Agriculture and Agri-Food Canada, "The Canadian Consumer - Behaviour, Attitudes and Perceptions Toward Food Products," (2010), <http://www.agr.gc.ca/eng/industry-markets-and-trade/statistics-and-market-information/by-region/canada/the-canadian-consumer-behaviour-attitudes-and-perceptions-toward-food-products/?id=1410083148457>.

²¹ Insights West, *Calgary Eats! 2014 Omnibus Survey* (2014).

²² Alberta Agriculture and Rural Development, *Alternative Agricultural Markets in Alberta, 2012* (2013), v, <http://www1.agric.gov.ab.ca/>.

²³ Statistics Canada, "Population, urban and rural, by province and territory (Canada)," (2011), <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo62a-eng.htm>.

²⁴ Agriculture and Agri-Food Canada, "The Canadian Consumer - Behaviour, Attitudes and Perceptions Toward Food Products," (2010), <http://www.agr.gc.ca/eng/industry-markets-and-trade/statistics-and-market-information/by-region/canada/the-canadian-consumer-behaviour-attitudes-and-perceptions-toward-food-products/?id=1410083148457>.

STRATEGY A: UNDERSTAND WHAT "LOCAL" MEANS TO THE CALGARY REGION

What is local? There are many different definitions of the word that vary by context. Defining what local means to the Calgary Region will be essential to achieving and identifying future goals, actions, and measurements of success. Due to the challenging climate of the Calgary Region and the limitation this places on the types of food produced, a generic "one-size-fits all" definition may not be sufficient to define the meaning of the word in the Calgary Region.

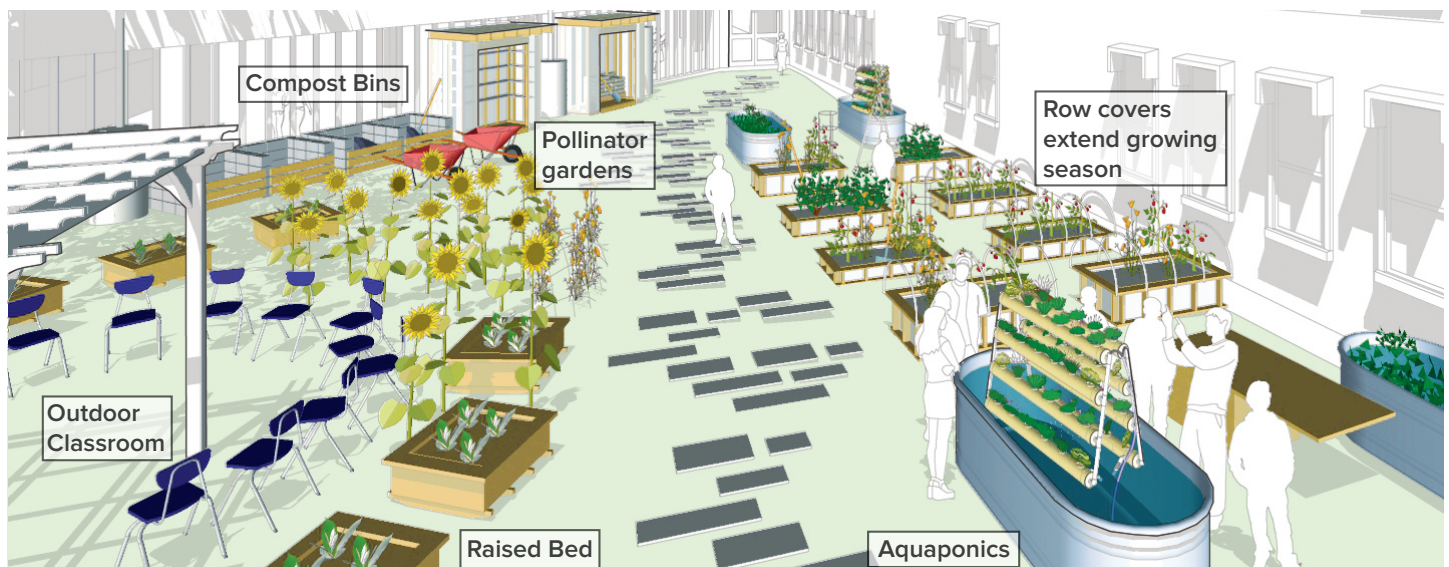
STRATEGY B: ENABLE CONSUMERS TO MAKE LOCAL FOOD CHOICES

Many consumers do not have the time, knowledge, or interest to research and understand

the local food system or where the food they eat comes from. Increasing food educational opportunities can empower people to adjust their food habits. A public messaging campaign on the food-land connection will help build general awareness of where food comes from and improve demand for locally produced food. Involving regional and provincial stakeholders in the discussion will assist in improving food labeling requirements and clarity.

CATALYZING ACTIONS:

- Research and identify food types and amounts grown within the boundaries of the Calgary Region and identify existing gaps.
- Combine food research with regional stakeholder discussions to establish an accurate and relevant definition of “local” in the Calgary Region context.
- Identify potential partnership opportunities with regional food stakeholders in order to connect organizations, initiatives, and resources throughout the region for the purpose of improving information for consumers, including k-12 students.
- Work with regional, provincial, and national stakeholders to create “local” food labelling and develop lists of locally produced products and where they can be purchased seasonally.
- Leverage and scale existing community-based training and learning on food skills and literacy across the Calgary Region.
- Support and encourage universal school food programs in order to bridge the urban knowledge gap.
- Conduct quantitative and qualitative research to understand the relationship between food knowledge and skills across various demographic categories in the Region.
- Launch a public messaging campaign that incorporates existing and planned research as well as new labeling requirements.
- Gather data on the amount of money that consumers spend on locally produced food.



Example of an initiative to build the food-land connection with school gardens.



INDICATORS:

- The number of people accessing food banks.
- Number of food deserts in the region.
- Number of food swamps in the region.
- Number of food insecure households in the region.

GOAL 3

All residents have access to safe, affordable, and healthy food.

THE CONTEXT

- Food access can be threatened and can fluctuate as a result of economic, social, or physical barriers, such as the price of oil, household income, or climate change and variability.
- In the **CALGARY METROPOLITAN AREA**, approximately 12% of households were food insecure in 2011/2012, up from 8.09% in 2007/2008.²⁵
- The number of people assisted by food banks in Alberta has increased 48.2% between 2008 and 2014. 42.9% of those helped by food banks in 2014 were children.²⁶
- In many cases, lower quality, over-processed food is often the cheapest, most accessible food available today.
- It is difficult to assess food insecurity at the household level throughout the Calgary Region, due to gaps between City of Calgary and Alberta provincial data.
- 48% of Calgary residences are located outside of a 1 km radius from a grocery store, indicating the presence of urban **FOOD DESERTS** and **FOOD SWAMPS** in Calgary and potentially the Region.²⁷

STRATEGY A: DEVELOP A COMPREHENSIVE UNDERSTANDING OF REGIONAL FOOD INSECURITY

More consistent data on household food insecurity across the Region will build a more complete picture of food access. Conducting a 'regional access needs assessment' at the household level will identify the areas and populations where targeted action is most needed.

STRATEGY B: LEVERAGE AND SCALE EXISTING FOOD INITIATIVES

There are several existing experts and initiatives within the food system of the Calgary Region. Building upon these assets will expand access to safe, healthy food throughout the Calgary Region.

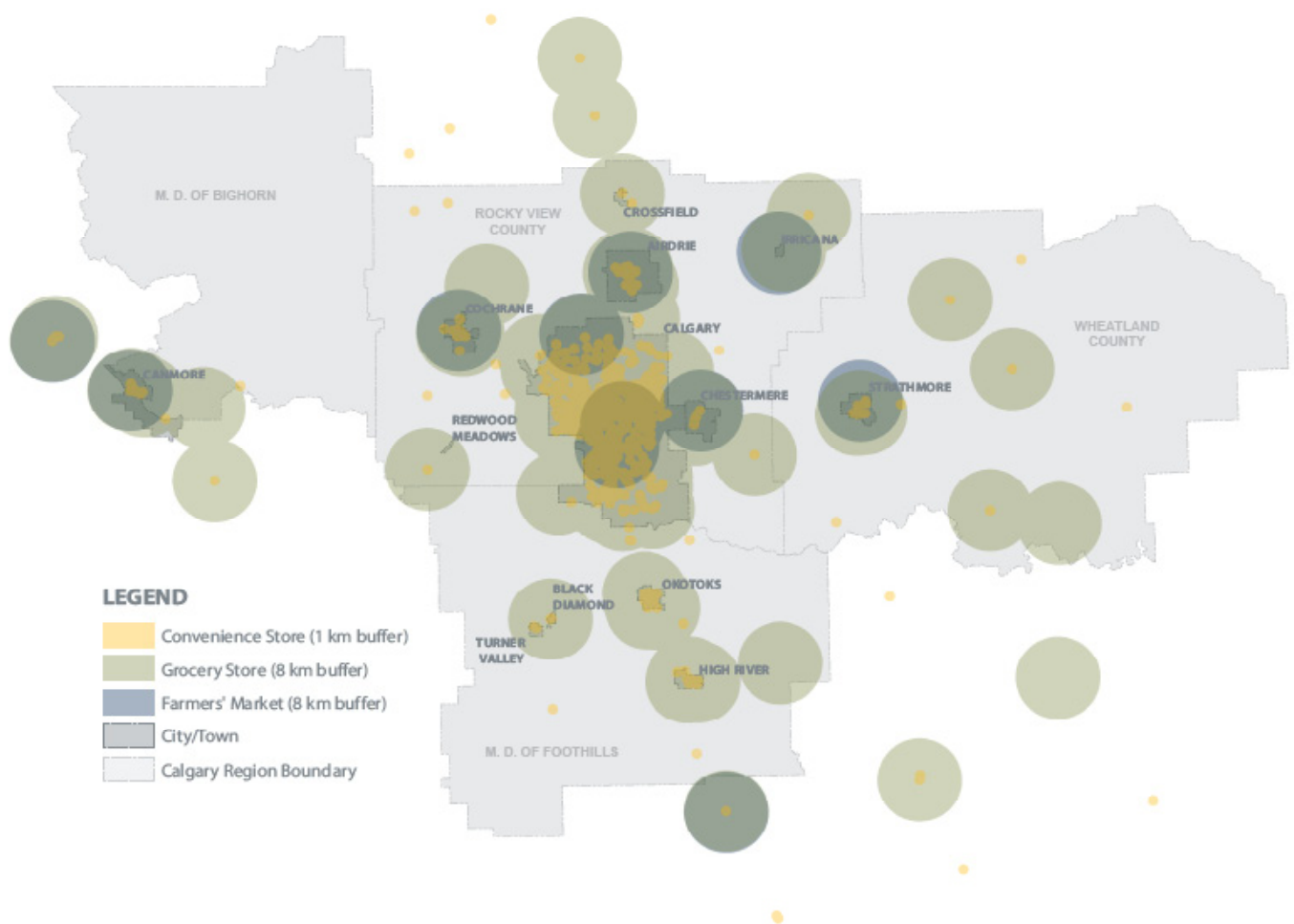
²⁵ Tarasuk, V., Mitchell, A. and Dachner, N., *Household Food Insecurity in Canada* (2012), 28.

²⁶ Food Banks Canada, *Hungercount 2014* (2014), <https://www.foodbankscanada.ca/getmedia/ab084392-9d65-4d04-9b26-cc8e5c29dcbb/HC-brochure-2014-EN-version-1-JAN19-FINAL.PDF.aspx?ext=.pdf>.

²⁷ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! Summary* (2012), 19.

CATALYZING ACTIONS:

- Identify and spatially represent urban food deserts and swamps throughout the Region (building on the work Calgary EATS! has completed for the City of Calgary) and work to connect producers and processors looking for food distribution points to assist these areas.
- Work with rural municipalities to define food deserts and food swamps in the rural context.
- Identify gaps and overlaps of existing initiatives in order to resolve issues across the Region.
- Assist community-level food programming to improve food access (i.e. community gardens, community kitchens, and food events), with a focus on food deserts and swamps.
- Identify and spatially represent food banks throughout the Region.
- Measure number of food insecure households in the Calgary Region.



Food Access for the Calgary Region: The above map illustrates the locations of three kinds of retail food sources in The Calgary Region, providing insights into physical access to food. When comprehensively studying food access, it is important to also understand social and economic access to food. These would be important elements of a Regional Food Access Needs Assessment.



INDICATORS:

Number of imports compared to the number of exports in the Calgary Region.

Number of food tourism initiatives in the Calgary Region.

Ratio of the type of producers in the Calgary Region.

Economic value of farmer's markets in the Calgary Region with a focus on local food.

²⁸ Carol Pierce, *Eating Local: Defining the Local Foodshed to Meet Local Food Goals* (2014), 39.

²⁹ Carol Pierce, *Eating Local: Defining the Local Foodshed to Meet Local Food Goals* (2014), 37.

³⁰ Alberta Office of Statistics and Information, "Alberta Official Statistics: Census Farm Numbers and Average Farm Size, Alberta," (2015), <http://data.alberta.ca/data/census-farm-numbers-and-average-farm-size-alberta-5>.

³¹ Alberta Agriculture & Forestry, "Census of Agriculture," (2015), [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/sdd12892#tables](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sdd12892#tables).

³² Sébastien Pouliot, *The Beginning Farmer's problem In Canada* (2011), 12, <http://ageconsearch.umn.edu/bitstream/118019/2/Beginning%20farmers%20-%20Pouliot%20Nov%202011.pdf>.

³³ Alberta Agriculture and Rural Development, "Alternative Agricultural Markets in Alberta, 2012," (2013), 25, <http://www1.agric.gov.ab.ca>.

³⁴ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 102.

GOAL 4

The Calgary Region has a diverse and collaborative regional food economy.

THE CONTEXT

- The regional farm economy is complex, and although geared towards large-scale export agriculture, there are many underlying intricacies that drive the export oriented agricultural industry including: trade agreements, regional agricultural efficiencies, and local consumer wants.²⁸
- Much of the local food retail system depends on imported food.²⁹
- The number of farms in Alberta has steadily declined, while the average size has increased.³⁰
- The average age of farm operators in Alberta has been getting older, with an average age of 46 in 1981 and an average age of 54.5 in 2011.³¹
- Capital requirements for start-up farms can often be a substantial barrier to entry into the agriculture sector for new farmers.³² The dependence of the local food retail system on imported food can also make it difficult for smaller-scale operations to be financially sustainable.
- Local producers have expressed difficulty accessing local markets today, due to logistical and regulatory challenges.
- Alberta farmers' markets grew in number and tripled in economic value between 2004 and 2012. During that same period, farm retail decreased in value by 19%.³³
- Many organizations have expressed interest in the possibility of establishing **FOOD HUBS** in Alberta and the Calgary Region to assist producers in accessing local markets.³⁴

STRATEGY A: DEVELOP THE LOGISTICS, DISTRIBUTION, AND DELIVERY INTERMEDIARIES TO CONNECT REGIONAL FARM PRODUCTS TO LOCAL CONSUMERS

Currently, producers experience difficulty in accessing local markets. Linking local producers to local markets by developing intermediaries (i.e. entities or facilities designed to bridge supply and demand gaps) will encourage more local production, support aggregation of small farm outputs, develop market channels, and increase access to local food for consumers through economies of scale.

STRATEGY B: ENCOURAGE FOOD SYSTEM INNOVATION IN THE CALGARY REGION

Co-locating multiple food businesses, organizations, or research groups has the potential to promote innovation, value-added processing, and community building through jobs, research and education.³⁵ These can be created in new “food campuses” or within the existing urban fabric. Clustering food organizations can have significant positive economic and social impacts at the regional level and potentially the provincial level as it relates to synergistic relationships, transportation demand management, and community impact.

STRATEGY C: LEVERAGE FOOD TOURISM TO CONNECT LOCAL CONSUMERS TO PRODUCERS

Combining agriculture and tourism provides the opportunity to showcase the local food system and make consumers aware of food produced in the Region. This will encourage and provide greater opportunities for consumers to buy locally produced food and bolster the food economy through tourism.

CATALYZING ACTIONS:

- Work with municipal, provincial, and federal governments, as well as food companies, to identify where local food is distributed to and where foreign food is exported from.
- Research and develop tools to measure the impact of local food on the economy.
- Explore ways to connect producers/processors in the Region with small to medium-sized retail and wholesale buyers and resellers.
- Develop a Calgary Regional Food Hub Feasibility Study to determine the viability and potential location(s) of a Regional Food Hub.
- Locate and identify existing and emerging centres of food system activity in the Calgary Region.
- Convene relevant Government of Alberta ministries to determine pricing and taxing of local versus imported food with the goal of making local food easier for consumers to purchase at a lower price.
- Identify and spatially represent existing food tourism initiatives and opportunities in the Calgary Region.
- Create a database of stakeholders in the food tourism sector and work to create synergies.

³⁵ Peter W. B. Phillips and C. D. Ryan Innovation, “The Economics of Production and Marketing of Greenhouse Crops in Alberta,” in *Agri-Food Clusters: Theory and Case Studies* (2013), https://books.google.ca/books?id=3EWxAqoFGGwC&pg=PA37&lpg=PA37&dq=benefits-of+food+industry+colocation&source=bl&ots=Ux2zgpp1lv&sig=bPR-HFBAAnSiH2VfY4xmwDJ0cqX00&hl=en&sa=X&ved=0CC8Q6AEwAmoVChMI_6y2m7XtxwIVCS2ICh1hR-g4Z#v=onepage&q=benefits%20of%20food%20industry%20colocation&f=true books?id=3EWxAqoFGGwC&pg=PA37&lpg=PA37&dq=benefits-of+food+industry+colocation&source=bl&ots=Ux2zgpp1lv&sig=bPR-HFBAAnSiH2VfY4xmwDJ0cqX00&hl=en&sa=X&ved=0CC8Q6AEwAmoVChMI_6y2m7XtxwIVCS2ICh1hR-g4Z#v=onepage&q=benefits%20of%20food%20industry%20colocation&f=false.



INDICATORS:

The variety of food produced in the Region.

The number of commercial greenhouses in the Region.

Amount of farmland in the Region.

GOAL 5

The Calgary Region efficiently and sustainably produces and processes a variety of food that sustains its population.

THE CONTEXT

- There is a continual loss of prime agricultural land due to the pressures of development in the Calgary Region, limiting the future ability of the Region to produce its own food.³⁶
- The value and importance of agricultural land is often not considered when municipalities grow.³⁷
- Farmland adjacent to urban areas can offer financial security to farmers and landowners due to local developer demand which can create a financial disincentive to maintain agricultural use.³⁸
- In the past 100 years, Alberta has largely been an exporter of food calories.³⁹
- The climate in the Calgary Region limits the number of growing days, however, the abundance of sunshine and wind in the Region provide opportunities for new forms of production. Calgary is one of the sunniest regions in Canada with 333 days (or 2396 hours) of sunshine, with 52% of daylight hours being sunny.⁴⁰
- In 2010, there were 30 greenhouse operations in the Calgary Region, compared to 75 in the Medicine Hat Region, 64 in the Red Deer Region, and 47 in the Edmonton Region.⁴¹
- There are currently large data gaps in the Calgary Region regarding the percentage of food consumed compared to the food produced in the Region.⁴²
- The environmental footprint of food consumption by a family of four is estimated at about eight tonnes per year after production, processing, packaging, and distribution is factored in.⁴³
- While the environmental impact of transporting food over great distances is quite high, distributing local food can also be detrimental when small, local producers do not work together to create economies of scale.⁴⁴
- There are some fruits and vegetables that are demanded by the public that we simply cannot grow or produce in Alberta.
- There is a wide variety of food that is produced in Alberta that is never labelled as such. In these instances, the consumer does not know that they are eating locally-produced food.

³⁶ McKenzie, R.H., AgAnnex, "Loss of Agricultural Land on the Prairies," AgAnnex, October, 2013, <http://www.agannex.com/field-crops/loss-of-agricultural-land-on-the-prairies>.

³⁷ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 65.

³⁸ Ibid.

³⁹ ALCES Group, *Temporal and Spatial Changes in the Natural Capital of the Upper Bow River Basin, Alberta, Canada* (2014).

⁴⁰ Current Results, "Sunniest Cities in Canada," last modified 2015, <http://www.currentresults.com/Weather-Extremes/Canada/sunniest-cities.php>.

⁴¹ Alberta Agriculture and Rural Development, *The Economics of Production and Marketing of Greenhouse Crops in Alberta* (2013), 6, [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex4369/\\$file/821-59.pdf?OpenElement](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex4369/$file/821-59.pdf?OpenElement).

⁴² The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 46.

⁴³ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 119.

⁴⁴ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 120.

STRATEGY A: MAXIMIZE NEW AND PRESERVE EXISTING GROWING SPACES IN THE CALGARY REGION

The Calgary Region has many opportunities to create more growing spaces at different scales. By maximizing food growing spaces – of all shapes and sizes, from apartment balconies to large farms – the Calgary Region can build the capacity to feed itself to a larger extent by capitalizing on a variety of approaches and spaces. Effort must also be placed on continuing to preserve existing agricultural land by incentivizing farmers to keep their land in production by placing increased value on this land when development is under consideration.

STRATEGY B: OPTIMIZE GROWING PRACTICES FOR RESOURCE EFFICIENCY

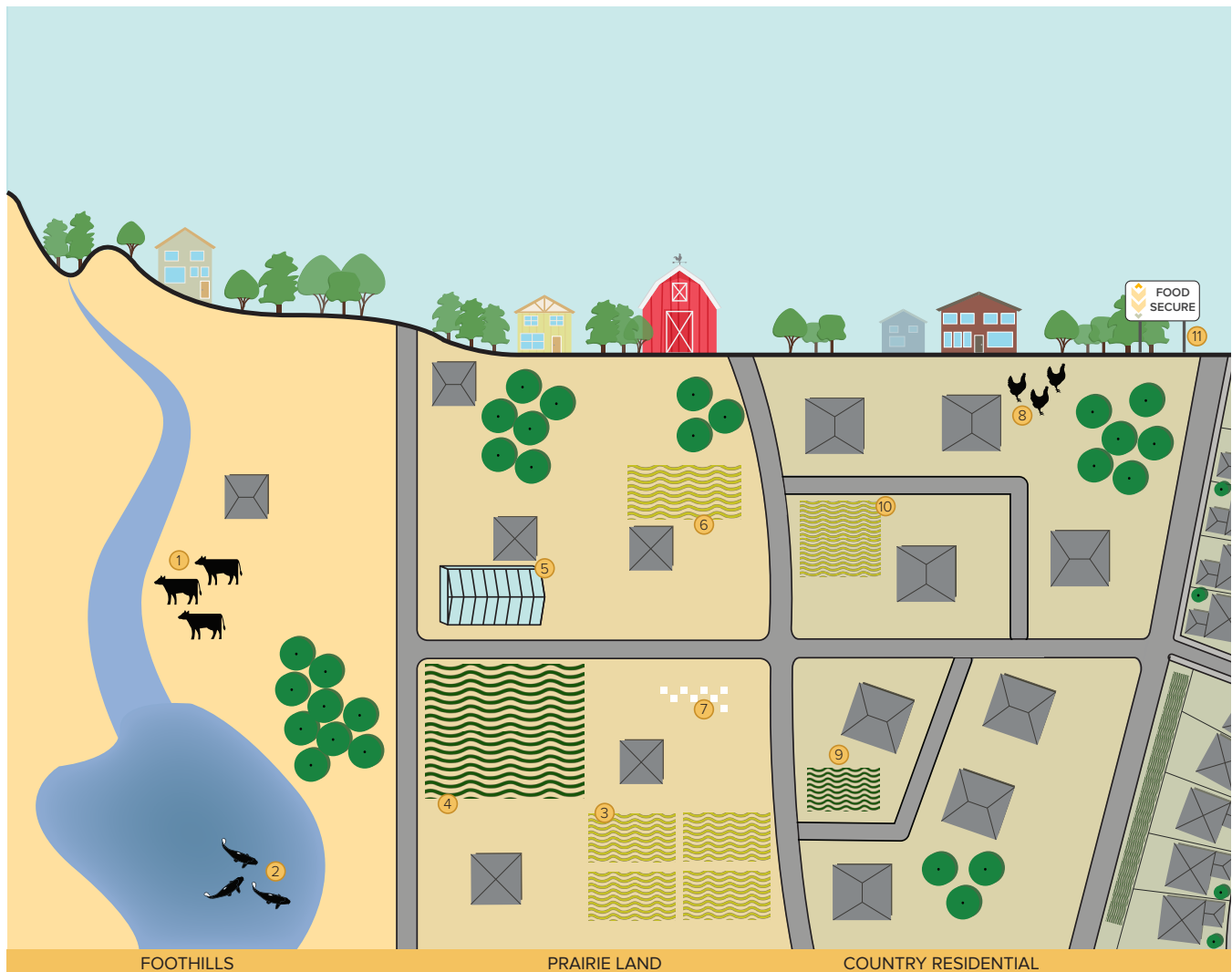
Promoting sustainable and innovative practices throughout the Calgary Region will help ensure long-term land and water supply. The limited growing season and the pressures on the Calgary Region's natural systems in conjunction with an increasing population will necessitate the growth of food with less energy, fuel, and water inputs.

STRATEGY C: FOOD PRODUCED IN THE REGION IS USED TO SUSTAIN ITS POPULATION

Enabling the consumption of locally produced foods will have many positive effects on the food system. It will reduce the monetary and environmental cost of distribution by reducing the amount of food that the Calgary Region imports from elsewhere. This cost will further be reduced by eliminating **REDUNDANT TRADE**. Consumers will know when they purchase local food that they are supporting local producers and the local economy. Ensuring that enough food is kept in the Region to sustain the population will also make the system more resilient to shocks in the global food system.

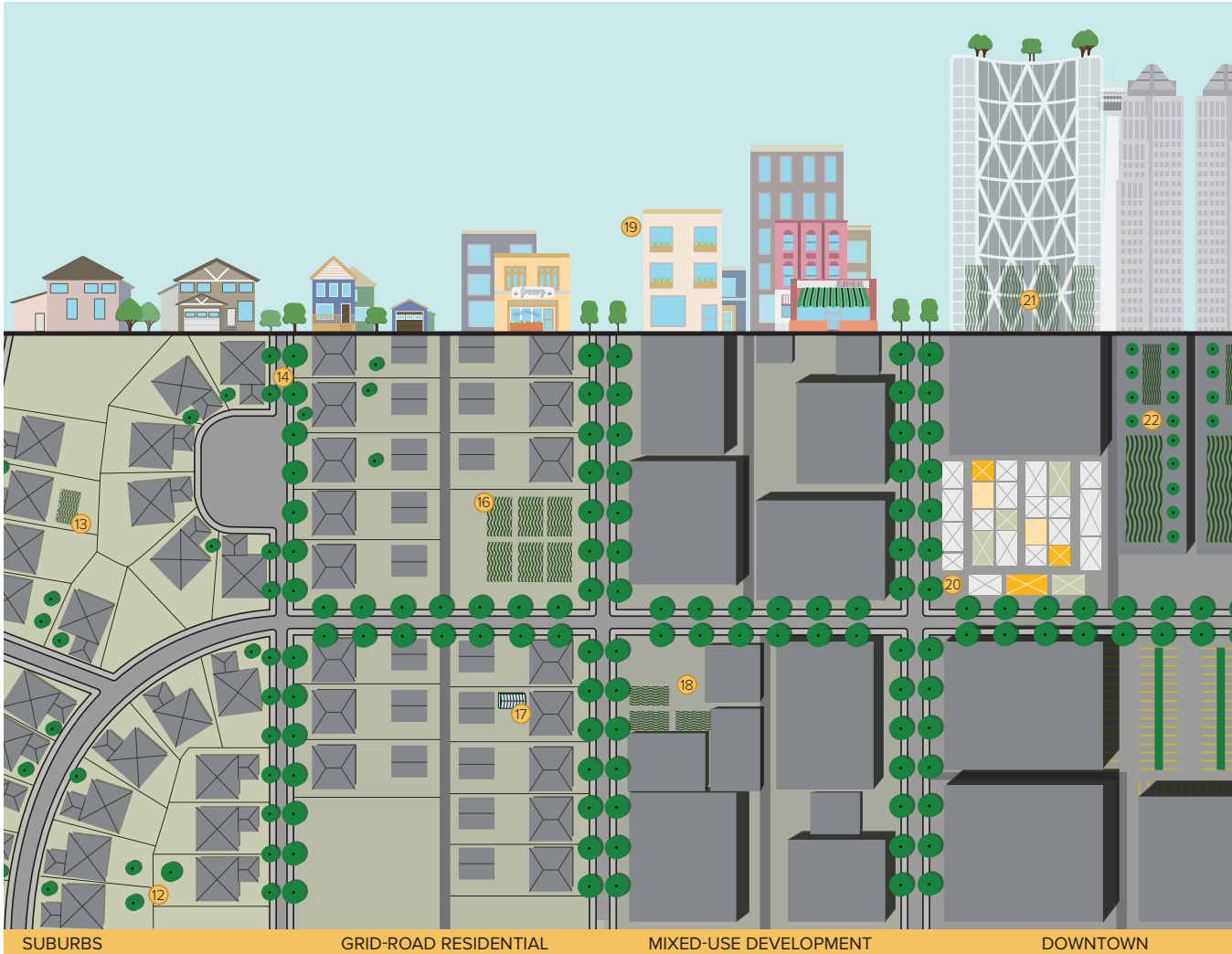
CATALYZING ACTIONS:

- Create a regional urban land inventory to identify suitable spaces for urban agriculture.
- Research alternative year-round growing facilities and determine suitable locations throughout the Region to reduce import requirements over time.
- Assess existing and new growing practices in the Region to determine solutions that are resource-efficient, with a focus on growing food that is typically imported into the Calgary Region and on identifying true costs: monetary, social, and environmental.
- Explore and develop financial mechanisms, in partnership with the Government of Alberta, to allow existing farmers to retire/transition out of agriculture while keeping their land in agricultural use rather than developing it for urban purposes.
- Gather data on imports/exports of all food types, specifically within the Calgary Region, with a focus on identifying where redundant trade is occurring.
- Gather data on the amount of food consumed versus produced in the Calgary Region.
- Work with Calgary EATS! to organize and coordinate local food producers to create economies of scale in distribution.



- | | | |
|------------------------------------|--------------------|-----------------------------------|
| ① cattle farm | ⑤ large greenhouse | ⑨ community supported agriculture |
| ② micro-fishery | ⑥ organic farm | ⑩ boutique farm |
| ③ open/market farm (rental option) | ⑦ beekeeping | ⑪ marketing campaign |
| ④ large-scale grain farm | ⑧ backyard animals | ⑫ fruit tree network |

Food Sustainability Regional Transect: this transect diagram illustrates various growing opportunities in the diverse settlement patterns across the Calgary Region.



- | | | |
|---|------------------------|--------------------|
| 13 personal garden | 17 personal greenhouse | 21 living building |
| 14 edible landscapes | 18 food hub | 22 rooftop garden |
| 15 community garden | 19 patio gardens | |
| 16 local supporting grocers/
restaurants | 20 farmers market | |



INDICATORS:

The amount (tonnes) of organic and non-organic food waste that is being diverted from the landfill.

Number of municipal organic waste programs.

The amount of organic waste converted to compost.

GOAL 6

Organic and non-organic food waste in the Calgary Region is diverted.

THE CONTEXT

- 1/3 of all food produced globally is wasted each year.⁴⁵
- If food waste were its own country, it would be the third largest contributor of global GHGs.⁴⁶
- The quantifiable value of food waste in Canada annually is \$31 billion.⁴⁷
- Approximately half of food waste comes from the household level.⁴⁸
- In 2014, 36% of single-family waste in Calgary was food – the highest amount of any waste category.⁴⁹
- The largest contributor to pre-consumer food waste is food processing.⁵⁰
- Data concerning non-organic or packaging waste within the Calgary Region is not readily accessible and is therefore difficult to measure.⁵¹

⁴⁵ Food and Agriculture Organization of the United Nations. *Food Wastage Footprint: impacts on natural resources* (2013), 6, <http://www.fao.org/docrep/018/i3347e/i3347e.pdf>.

⁴⁶ Ibid.

⁴⁷ Value Chain Management International Inc., *\$27 Billion Revisited: The Cost of Canada's Annual Food Waste* (2014), 10, <http://vcm-international.com/wp-content/uploads/2014/12/Food-Waste-in-Canada-27-Billion-Revisited-Dec-10-2014.pdf>.

⁴⁸ Ibid., 12.

⁴⁹ The City of Calgary, *Calgary Eats! Progress Report 2014* (2014), 17, <http://www.calgaryeats.ca/wp-content/uploads/2015/03/2015-0888-CalgaryEATS-Food-Report-for-Committee-Web-1.pdf>.

⁵⁰ Value Chain Management International Inc., *\$27 Billion Revisited: The Cost of Canada's Annual Food Waste* (2014), 11, <http://vcm-international.com/wp-content/uploads/2014/12/Food-Waste-in-Canada-27-Billion-Revisited-Dec-10-2014.pdf>.

⁵¹ The Calgary Food Committee; Serecon Management Consulting Inc., Altus Group, *Calgary EATS! A Food System Assessment and Action Plan for Calgary* (2012), 207.

STRATEGY A: PRE-CONSUMER FOOD WASTE IS REDISTRIBUTED AND REPURPOSED AS A RESOURCE

The Calgary Region has many opportunities to reconsider pre-consumer food waste as a resource. By focusing on pre-consumer areas of the food system, organizations and institutions can collaborate and innovate to take advantage of the economic, social, and environmental opportunities presented by food waste.

STRATEGY B: POST CONSUMER FOOD WASTE IS ELIMINATED

Currently, there are few composting programs within the Calgary Region. Outside of these programs, any unwanted food scraps and expired goods are disposed of by way of the garbage bin. Composting will allow food to break down and decompose, regenerating soil in the process.

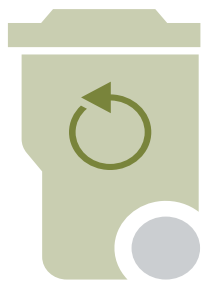
STRATEGY C: NON-ORGANIC FOOD WASTE IS IDENTIFIED AND REDUCED

Currently, little data exists on non-organic food waste, such as food packaging, in the Calgary

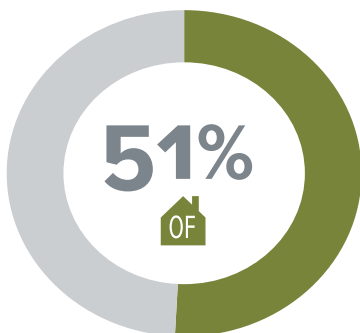
Region. Developing methods of measuring and tracking this waste will provide a clearer picture of how much non-organic waste such as food packaging goes to landfills each year. Partnering with organizations to create awareness of this waste and how to reduce it will help citizens and organizations make informed choices when purchasing, producing, and processing food.

CATALYZING ACTIONS:

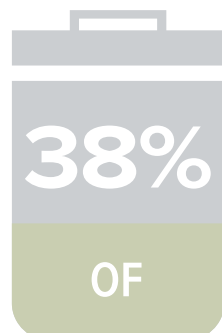
- Monitor and communicate the amount of organic and non-organic food waste that is being diverted from the landfill through the compilation of a regional food waste database.
- Research, communicate, and implement new and innovative ways to reduce and repurpose pre and post-consumer food waste throughout the Calgary Region.
- Encourage and assist in implementing municipal compost bin programs throughout the Calgary Region.
- Research and communicate options for alternative household food waste diversion throughout the Calgary Region.
- Identify potential partners to create or build on existing public awareness campaigns to share with citizens how much food is wasted throughout the Region (i.e. Calgary EATS!, Feed the 5000, etc).
- Explore and develop methods of tracking the amount of non-organic food waste created in both the pre and post-consumer portions of the food system.
- Explore and implement methods of reducing pre-consumer food waste in partnership with relevant stakeholders, with a focus on reducing food waste from food processing.



THE CITY OF CALGARY
HAS A COMPOSTING CAPACITY OF
36,500 TONNES
PER YEAR.



Food waste comes
from households.



RETAIL
FOOD
IS WASTED
ANNUALLY.

Summary

5

Summary

Food Secure is a living strategy that will continue to evolve as the Calgary Region grows and changes. In order to build a more food secure region, it is imperative that action takes place across all scales and geographies and through a range of stakeholders. The *Food Secure* Strategy is a starting point for stakeholders to understand the existing Calgary Region food system and to initiate the conversation of food security.

Food Secure outlines tangible actions that are intended to move the Region towards food security regardless of the initiating individual or organization. The CRP is committed to starting at the ground level on two fronts: by convening interested stakeholders in an ongoing conversation around food security and continuing to explore emerging and existing partnerships with organizations currently working in food security while working to develop the data required to understand the 'base case' of food security for the Calgary Region.



IMMEDIATE ACTIONS:

GOAL 1: The Calgary Region is a leader in food planning and governance.

- Create a regional food secure working group that meets regularly to reflect and report on specific actions taken from the report.
- Host workshop with local decision makers in order to help them understand their role in the regional food system and what actions they can take in their municipality.

GOAL 2: People are aware of the connection between the food they eat and where it comes from.

- Research and identify food grown within the regional boundaries and identify gaps.
- Using research of food grown within the Region in combination with discourse with regional stakeholders, establish an accurate and relevant definition of "local" in the Calgary Region context.

GOAL 3: All residents have access to safe, affordable, and healthy food.

- Identify and spatially represent food deserts and swamps throughout the Region (building on the work Calgary EATS! did for the City of Calgary).
- Identify gaps and overlaps of existing initiatives in order to resolve issues across the Region.

GOAL 4: The Calgary Region has a diverse and collaborative regional food economy.

- Locate and identify existing and emerging centers of food system activity in the Calgary Region.
- Identify and spatially represent existing food tourism initiatives and opportunities in the Calgary Region.

GOAL 5: The Calgary Region efficiently and sustainably produces and processes a variety of food that sustains its population.

- Gather data on imports and exports of all types of food specifically within the Calgary Region with a focus on identifying where redundant trade occurs and what types of food are typically imported.
- Gather data on the amount of food consumed in the Calgary Region compared to the amount of food produced and the population of the Region.

GOAL 6: Organic and non-organic food waste in the Calgary Region is diverted.

- Monitor and communicate the amount of organic and non-organic food waste that is being diverted from the landfill through the compilation of a regional food waste database.
- Explore and develop methods of tracking the amount of non-organic food waste created in both the pre and post-consumer portions of the food system.

Appendix:

6

Appendix 6A: Definitions

CALGARY METROPOLITAN AREA: Includes Calgary, Airdrie, Rocky View, Cochrane, Chestermere, Crossfield, Tsuut'ina Nation, Irricana, and Beiseker.⁵²

CALGARY REGION: Consists of the City of Calgary, Municipal District of Bighorn and the municipalities within it; Rocky View County and the municipalities within it; the Municipal District of Foothills and the municipalities within it; and Wheatland County and the municipalities within it.

FOOD HUB: A regional food hub is a business or organization that actively manages the aggregation, distribution and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail and institutional demand.⁵³

FOOD INSECURE: The experience of food insecurity can range from concerns about running out of food before there is money to buy more, to the inability to afford a balanced diet, to going hungry, missing meals and in extreme cases, not eating for a whole day because of a lack of food and money for food.

FOOD SECURITY: Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.⁵⁴

FOOD SYSTEM: Includes all processes and infrastructure involved in feeding a population: growing, harvesting, processing, packaging, transporting, marketing, consumption, and disposal of food and food-related items.

LOCALIZE: A shelf-labeling program that transforms how grocers label, promote, and source local products allowing shoppers to make quick, educated choices.

REDUNDANT TRADE: Redundant trade refers to the movement of goods from point A to point B while those very same goods, at the very same time, are being transported from point A to point B.

FOOD DESERT: An urban area in which it is difficult to buy affordable or good-quality fresh food.

FOOD SWAMP: A place where unhealthy foods are more readily available than healthy foods.

STATUTORY PLANS: A plan adopted by a government body that both the government body and residents have a legal obligation to adhere to.

⁵² Statistics Canada, *Census Metropolitan Area of Calgary, Alberta* (2011), <https://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-cma-eng.cfm?LANG=Eng&GK=CMA&GC=825>.

⁵³ United States Department of Agriculture, *Regional Food Hub Resource Guide* (2012), 4, <http://www.ams.usda.gov/sites/default/files/media/Regional%20Food%20Hub%20Resource%20Guide.pdf>.

⁵⁴ Food and Agriculture Organization, *The State of Food Insecurity in the World 2001* (2002), <http://www.fao.org/docrep/005/y4671e/y4671e06.htm>.

Appendix 6B: Engagement Summary

PROCESS

The engagement process behind the development of the CRP's *Food Secure Strategy* was extensive. Stakeholder groups were divided into three categories: deliberate, ideate, and validate.

The deliberate group consisted of six members, all of whom have a strong understanding of the food system and current regional challenges. The deliberate group helped structure the goals and identify stakeholders for the project.

The ideate group consisted of 70 identified food system professionals ranging from producers and processors to educators, advocates and waste management experts. About 50% of this group attended at least one of the two workshops where initial food security issues and potential future actions were discussed.

The third group, validate, were a range of food system professionals and their associated networks. This group served to validate ideas and issues that resulted from the workshops.

PARTICIPATION

On April 15, 2015, a group of 28 participants joined the CRP for a *Food Secure Strategy* stakeholder workshop. In this session, over 200 ideas were generated regarding the issue of food security in the Calgary Region. To validate the major themes heard from stakeholder feedback, a questionnaire was created and released online as well as at the annual Producer's Tea in Cochrane, Alberta. Over 70 people responded to the survey request, which assisted the project team in narrowing the scope of issues that are in 'direst' need of being addressed in the Calgary regional context.

On May 11, 2015, 20 participants joined the CRP's second *Food Secure Strategy* action workshop. During the second workshop participants worked to narrow issues of food security to potential actions for the future. Over 300 potential actions surfaced as a result of open dialogue amongst this group. CRP staff also attended the annual Calgary EATS! event (2015) where attendees further provided insights on actions to achieve regional food security in the future.

ENGAGEMENT TOOL	PARTICIPANTS	IDEAS
Deliberate Survey	7	21
Ideate Workshop #1	28	236
Validate Survey	52	191
Producer's Tea	20	50
Ideate Workshop # 2	20	323
Validate Survey	16	71
Calgary Eats! Event Booth	49	49

UNDERSTANDING THREATS AND OPPORTUNITIES

Based on the engagement conversations, the following themes emerged regarding existing threats and opportunities to food security in the Calgary Region.

LAND USE	EDUCATION	FOOD CULTURE	GOVERNANCE & COLLABORATION	HOUSEHOLD ECONOMY
<ul style="list-style-type: none">• Population growth• Available agricultural land• Urban development (sprawl)	<ul style="list-style-type: none">• Food literacy (local food and food preparation knowledge)• Food system in curriculum	<ul style="list-style-type: none">• Culture of convenience• Land-food connection• Social behaviour	<ul style="list-style-type: none">• Legislative policy• Multi-sector/ multi-jurisdiction• Local bylaws• Private sector involvement	<ul style="list-style-type: none">• Price of food• Food workers pay• Living wage• Cost of sustainable/ 'ethical' food

THREATS

Based on engagement feedback from phase 1, the most prominent threats to food security in the Calgary Region were identified as:

- Climate change and severe weather
- Gaps in food distribution
- Loss of food knowledge and skills
- Disconnect between people, food, and land
- Excessive food waste
- Lack of collaborative decision-making
- Loss of agricultural land to growth
- Household food costs and income
- Lack of sustainable agricultural practices
- Water supply
- Dependence on foreign food sources

OPPORTUNITIES

The key opportunities to achieve food security in the Calgary Region were identified as:

- Diversifying the local food economy
- Agricultural land preservation
- Education and food literacy
- Building a strong food culture
- Improved governance and collaboration
- Sustainable agricultural practices

- Revaluing food waste
- Improving distribution and food hubs

THEME PRIORITIES AND GAPS

After capturing the overarching themes heard from engagement participants on threats and opportunities, the team checked in with the validate group to prioritize and find gaps in the threats and opportunities that arose from the ideate workshops.

Threat priorities included:

1. Disconnection between people, land, and food.
2. Loss of agricultural land to growth.
3. Climate change and severe weather.
4. Water availability.
5. Lack of collaborative decision-making.
6. Household food cost and income.

Opportunity priorities included:

1. Agricultural land preservation.
2. Diversifying the local food economy.
3. Education and food literacy.
4. Sustainable agricultural practices.
5. Improved governance and collaboration.
6. Building a strong food culture.

Additional threats identified were mainly in the production, access and education / knowledge areas of the food systems. More specifically it was said that threats in these areas particularly were:

- 'Barriers to urban agriculture'.
- 'Current interpretation of 'highest and best use of land' in the MGA'.
- 'Devaluing agricultural land in favour of development'.
- 'Food costs in relation to earnings and the economic environment'.
- 'The link between poverty and food security and the need for a living wage'.
- 'Its cheaper to eat fast food for citizens living in poverty with no affordable means of getting around'.
- 'Knowledge that the food security / ecological goods and services bank balance is at the tipping point'.
- 'Community spirit and shared values'.

Additional opportunities identified were surrounding the production, distribution and education / culture of the food system. More specifically it was said that opportunities in these areas were:

- 'Green roofs and self-sufficiency vs. hand-out for help from others'

- 'Promoting agriculture and food production as a good career choice for students'
- 'Agricultural land preservation could include exploring financial mechanisms such as transfer of development credits to preserve farmland'.
- An e-bay like selling tool to marry small capacity output with small capacity consumption (independent stores and restaurants)'
- 'Distribution and young farmers taking on school land'
- 'Connecting water, land, and food as critical shared resources to be managed vs. bought and sold as commodities'.

COMMON ISSUES PRIORITY

Of the common issues recognized as both a threat and potential opportunities to food security, the following areas were prioritized as most important:

1. Education.
2. Land Use: Growth and policy.
3. Sustainable agriculture.
4. Water.
5. Food waste.
6. Governance and collaboration.

INTERVENTIONS

Building on the understanding of the food system from 'context' the next phase of the conversation with stakeholders focused on interventions (actions) that will help move the Calgary Region towards a more food secure future.

Based on the action-based conversations, it was found that to achieve food security in the Calgary Region, action must be taken in the following areas:

- Access to food – physical, social, and economic.
- The global, regional, and household economies of food.
- The natural limits of our regional environment.
- Governance and collaboration.
- The food-land connection – education and awareness.
- Food waste.

Based on these themes *Food Secure* extrapolates them into the key goal areas for the Strategy.

The Food Secure Goals, Strategies, and Actions were further work-shopped by the CMP Implementation and Regional Servicing Steering Committee in the fall of 2015 with the conversation being captured throughout the strategy. A draft document was then circulated to the Deliberate Workshop Group before being considered by the CRP's Executive Committee and Board in the fall of 2016.



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