

fresh

EDMONTON'S
FOOD & URBAN AGRICULTURE
STRATEGY

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EDMONTON'S FOOD & URBAN AGRICULTURE STRATEGY | OCTOBER 2012

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Foreword: A Note from the Chair

The Food and Urban Agriculture Advisory Committee I chaired for close to the last year was made up of fourteen citizens from different parts of Edmonton and with different interests in the food and agriculture sector. As Chair I want to personally thank the members of the Advisory Committee for their hard work, their dedication and, most of all, the incredible degree of respect shown in every meeting. It was a great learning experience for us, but it was also made pleasant by the regard each member showed for the rest. The Advisory Committee members were:

Angus Watt | *Angus Watt Advisory Group*

Areni Kelleppan | *Sustainable Food Edmonton*

Candace Vanin | *Agriculture and Agri-Food Canada*

Ken Gossen | *Food Processing Development Centre*

Debbie Hubbard | *Greater Edmonton Alliance*

Dieter Kuhlmann | *Kuhlmann's Market Gardens*

Henk ten Wolde | *Alberta Netherlands Trade Office*

Janet Riopel | *Walton Development and Management*

Jerry Bouma | *Toma & Bouma Management Consultants*

Jessie Radies | *Live Local and Blue Pear Restaurant*

David Gibbens | *Edmonton Federation of Community Leagues*

Lisa Jimmo | *Horse Hill Community League*

Mary Beckie | *Faculty of Extension, University of Alberta*

Susan Roberts | *Growing Food Security in Alberta*

Some of us are farmers, some of us are developers, some of us are academics, some of us are community organizers; but one thing that was clear from the first meeting was that no matter what our backgrounds were, we all shared one common passion and purpose—to make Edmonton's food system better. And over the course of the last year, despite different backgrounds and points of view, we worked hard to achieve that common goal. It wasn't always easy; when you get fourteen smart and dedicated people in the same room you'll have differences of opinion. But those discussions were what pushed us to try and do something special and something new. We hope we managed that.

I also have to thank the fantastic level of support we got from the City's administrative staff. They put in a massive amount of work, both in organizing our meetings and in doing the research, and for that I am personally thankful. Lastly, I know I speak for every Advisory Committee member when I thank the citizens of Edmonton who participated in this process with us. We could not have gotten close to producing the Strategy we did without their incredible insight, ideas and enthusiasm, through the Citizen Panels, the surveys, the conference and the online activity.

Creating *fresh* has been quite the ride, but it's been worth it, because we produced a Strategy that asks Edmontonians to imagine a city in which our food and urban agriculture landscape is more vibrant and resilient at every level. We think it's possible, we think it's exciting, and we can't wait to start working with you to make it happen.

Aaron Falkenberg, Chair
Food and Urban Agriculture Advisory Committee

SEPTEMBER 2012



fresh. EXECUTIVE SUMMARY

Municipal governments have begun to recognize the enormous opportunity provided by a more thoughtful consideration of food and its relationship to local community development. They are recognizing the importance of food and urban agriculture as an opportunity to increase the sustainability and quality-of-life of their communities, as well as a means for economic development. ***fresh: Edmonton's Food and Urban Agriculture Strategy***, is a result of that consideration and it imagines how new approaches to food and urban agriculture can make Edmonton an even better place to live, work, play and invest.

We are a rapidly growing city in a growing region. As we welcome more people, there is increased demand and pressure, in terms of services, jobs, land, infrastructure and other resources. Our strategic planning must make sense within our local, regional and provincial contexts and our approaches to how we grow and use land must balance different and divergent needs, values and pressures.

When the City of Edmonton embarked upon developing the Strategy, it was clear that a significant public consultation and dialogue would be necessary and valuable. Over 3000 Edmontonians participated in one way or another in our consultation process and stakeholders from many diverse areas of urban agriculture shared their views and opinions.

It was also understood early on that Edmonton's food system is complex, but that the Strategy should focus on the local level, on Edmonton and what Edmonton can influence. This meant the strategy needed to integrate into existing City plans, priorities and budgets.

fresh: Edmonton's Food and Agriculture Strategy, was developed by an Advisory Committee comprised of 15 stakeholders and experts in agriculture, food systems, economic, community and land development, and supported by project consultants and City staff.

Using the food system as a guide, the Advisory Committee identified five Goals that would serve as a foundation for the Strategy. These are:

- A stronger, more vibrant local economy
- A healthier, more food secure community
- Healthier ecosystems
- Less energy, emissions and waste
- More vibrant, attractive and unique places

Next, the Advisory Committee developed nine Strategic Directions, which form the basis of action for the entire Strategy. The Strategic Directions are:

- ① Establish the Edmonton Food Council
- ② Provide Food Skill Education and Information
- ③ Expand Urban Agriculture
- ④ Develop Local Food Infrastructure Capacity
- ⑤ Grow Local Food Supply and Demand
- ⑥ Enliven the Public Realm Through a Diversity of Food Activities
- ⑦ Treat Food Waste as a Resource
- ⑧ Support Urban Farmers and Ecological Approaches to Farming
- ⑨ Integrate Land Use for Agriculture

Each of the Strategic Directions contains several Recommendations. These Recommendations will help to realize the Vision and Goals, taking advantage of the strong relationships, assets and opportunities that already exist in Edmonton. Future adoption and implementation of the Recommendations will position the City of Edmonton to become a leader in municipal food and urban agriculture initiatives.

fresh is not an endpoint, but a starting point. With that in mind, the Strategy does not provide a detailed implementation plan but rather sets directions for moving forward. Implementation will occur over time as the Edmonton Food Council is established, partnerships are formed, research is continued, resources are allocated and progress builds towards results.

We have seen throughout the development of **fresh** that Edmontonians possess an enormous amount of enthusiasm and passion for this issue. Success will depend in large part on whether **fresh** manages to engage Edmontonians. Citizens will need to be included in the process and stakeholders should continue to be consulted. The City of Edmonton can also expect to forge partnerships with many stakeholders, in both the private sector and public sector. Certainly, all partners and stakeholders will be encouraged to enter into the implementation of the Strategy understanding that it carries expectations and responsibilities.

We also know what success will look like by the stories that are told. We'll know **fresh** is working if our citizens tell us they have good access to local foods, if we see prime farmland has been protected, if people who work in the local food sector are succeeding, if farmers' markets and neighbourhood food activities are vibrant, if the great diversity of our culture is represented in the foods we buy, cook and eat and if our new neighbourhoods grow and evolve in harmony with a strong food and urban agriculture heritage.

This is what success will look like.





EDMONTON 2012: OUR FOOD AND URBAN AGRICULTURE REALITY

fresh. EDMONTON'S FOOD & URBAN AGRICULTURE STRATEGY

Edmonton is fortunate to sit at the intersection of many important and dynamic opportunities in today's world. We have a strong economy with sound forecasts for growth. We are at the center of a region that is competing in some of the world's leading industries, including agriculture. We have access to ample water and fertile land that surrounds us. And we can boast of a population that combines a pioneer spirit with unstoppable innovation.



Given all this, Edmonton has an opportunity to consider the role of food and urban agriculture in its economy and in the lives of its citizens. We have a long history of food production and we are a major urban centre with some world class players in the food sector. Edmonton also has an emerging food culture —from small local producers at farmers' markets to successful large commercial farms, from food trucks offering diverse and delicious meals to unique high-end restaurants. Yet how often do we really stop to consider where our food comes from and the degree to which local knowledge, expertise and enthusiasm can further build our local food and urban agriculture system? What part do we play - as individuals, as a community and as businesses - in the growing, processing, transporting, selling, waste management, and education about the food we eat? What truly are the possibilities and responsibilities for Edmonton in fostering this local food system? All of these questions pertain to the interrelatedness of the food system. More information on the elements of a food system is provided on page 18.

fresh provides a singular opportunity to imagine how new approaches to food and urban agriculture can make Edmonton an even better place to live, work, play and invest. It is no exaggeration to say that food matters to each of us every day, in terms of health and community, but we also need to consider how to make our city a more innovative and dynamic food and urban agriculture setting as we move into the future.

Cities across North America are considering the development of plans that will affect the role and scale of their local food and urban agriculture sectors. Edmonton has the potential to be a leader among these cities by creating and implementing a food and urban agriculture strategy based on research, citizen input and stakeholder expertise in both the food system and Edmonton's context. We believe **fresh: Edmonton's Food and Urban Agriculture Strategy** is realistic and positions Edmonton to develop a sustainable and resilient food system at every level, from community gardens to greenhouses to large

Please refer to the Glossary in Appendix 1 for any terms that are unfamiliar.

export producers, from farmers' markets to an array of food retail options to compelling celebrations of local food in a variety of venues and settings.

Like any worthwhile endeavour, however, there will be challenges. We face certain realities in Edmonton. We are a rapidly growing city in a growing region. Inevitably, as we welcome more people, there is increased demand and pressure in terms of services, jobs, land, infrastructure and other resources. Our strategic short to long-term planning must also make sense within our local, regional and provincial contexts, and our approaches to how we grow and use land must balance different and divergent needs, values and pressures. We believe thoughtful guidance and advice can help decision-makers determine how best to integrate and leverage food and urban agriculture opportunities for Edmonton's future success.

This is an important moment in Edmonton's evolution as a city. It is important to think ahead, to envision a stronger Edmonton at every level. This means thinking seriously, on an ongoing basis, about the future of food and urban agriculture in our city. The Vision, five broad Goals, nine Strategic Directions and supporting Recommendations in **fresh** are all reflective of extensive consultations and the expertise, interest and commitment already here in Edmonton.

What this strategy addresses is a local food system in Edmonton; it does not address the larger commercial food industry centered here.

Food systems are defined by the geographic, political, economic, environmental and social contexts in which they exist. A local food system has a shorter supply chain across which production, processing, distribution and consumption are locally focused. The Advisory Committee

agrees that there are vital connections and relationships between the emerging local food system and the regional, national and international food industry based here, and that they are complementary and interwoven. However, addressing the issues of the larger commercial food sector would be far beyond the scope and ability of this Advisory Committee. Any effort to seize the opportunities presented by the larger commercial food sector will be valuable to the emerging local food sector and to all of Edmonton in terms of economic development. However, those efforts are best left to appropriate bodies such as economic development organizations and the Capital Region. We encourage the pursuit of an agri-food strategy for Edmonton's commercial food industry.

As the Advisory Committee worked through the development of **fresh**, it faced some fundamental questions, not all of which this Strategy, or a multi-stakeholder committee, could address. Our city must decide on issues for which there is little agreement. Often there is no existing information or research available that would help frame the answers properly. Because of this, **fresh** does not mark the endpoint of a process, but the starting point. The process of realizing this Strategy should never be complete. This Strategy will evolve over many years as we reinforce and build on ongoing successes. Looking forward, with the right mix of determination, innovation and collaboration, we can transition Edmonton from a good food city to a great food city.



PRAIRIE MILL BREAD CO.

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BUILDING A STRATEGY
THAT MATTERS

fresh. EDMONTON'S FOOD & URBAN AGRICULTURE STRATEGY

2.1 Planning for Resilient Local Food Systems



Food and urban agriculture have not always been the most pressing concern for municipal governments which have traditionally focussed on more familiar and often seemingly more urgent issues, like roads, infrastructure, water, waste management and managing land development. Edmonton has not been markedly different in this regard. However, municipal governments across the continent have begun to recognize the enormous opportunity provided by a more thoughtful consideration of food and its relationship to local community development. They are recognizing food and urban agriculture as an opportunity to increase the sustainability and quality-of-life of their communities and as a critical lever for achieving many other civic goals and objectives.

Ever-increasing issues around environmental, social and economic sustainability are leading municipal governments to think more creatively about how to address community resilience and livability in relation to food and urban agriculture. In response to these trends, and to the clear voices of Edmontonians committed to food issues, the City of Edmonton, through *The Way We Grow* and other municipal plans, has recognized food and urban agriculture as a factor to be considered in its future planning and community development.

Municipalities can also capitalize on opportunities by taking an integrated planning approach that brings together different systems (including infrastructure, food and agriculture, energy and buildings) performing different but complementary functions. There is certainly this potential in Edmonton, and highly integrated planning will be necessary to meet the Vision and Goals of **fresh**.

The various components of a food system including food production, processing, distribution, consumption and waste management are related to many other planning issues with which municipalities grapple. For example, the food system impacts and is impacted by land use, urban design, transportation, economic development, waste management, the cost of living, the environment and the health of the population.

Critical points identified when developing the Edmonton's Food and Urban Agriculture Strategy include:

- Economic development (ensuring viable commercial businesses, local enterprise development, agri-tourism)
- Infrastructure (value-added processing, storage and distribution centres, road and rail networks)
- Growth planning coordination (urban boundaries, densification, farm/urban edge integration)
- Land use (zoning for food and urban agriculture activities)
- Housing (community amenities and housing design for cooking and growing food)
- Municipal operations (food procurement, demonstration kitchens and gardens)
- Transportation (food distribution, warehousing, walkable and transit-oriented food amenities)
- Parks and open space (food festivals, farmers' markets, community gardens and urban farms)
- Waste systems (infrastructure for food waste reduction, composting)
- Education and community resources (workshops, partnerships, organizational and institutional development)

2.2 What is Meant by Local?

In terms of the scope and scale of this Strategy, the focus of the Recommendations is at the local level and on what the City of Edmonton can achieve within its jurisdiction together with a range of public, private and community partnerships. However, to fully understand local food systems, it is necessary to present the definition of “local” along a spectrum from most local to least local. There are several elements that must be considered together to determine what is and is not local. Figure 1 captures the relevant impacts of the shades of local, which include:

- **Ownership** and/or location of headquarters for food and agriculture related businesses
- **Residency of labour force**, i.e. where the majority of jobs are concentrated
- **Location of primary production** and
- **Location of processing and distribution**

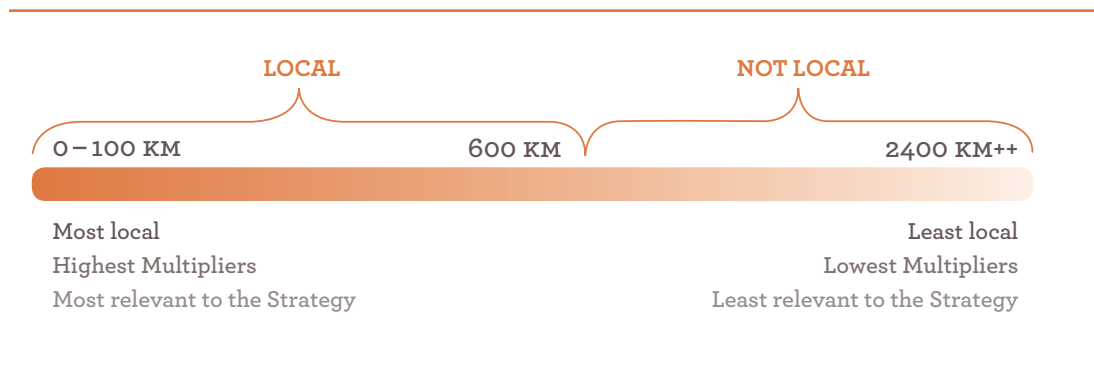
To better understand the relative geographic dimension of the term “local”, it is worth noting that Alberta Agriculture and Rural Development would consider all of Alberta as local. Another metric based purely on distance, offered by the US Congress in the 2008 Farm Act, would be 600km. This distance would be approximately the distance between Edmonton and Medicine Hat, Saskatoon, or Nelson, B.C. However, as noted above, there are multiple important factors when considering what is local, and the concept must be flexible to adequately encompass Edmonton’s emerging local food sector and move us towards the overarching intention of producing food as close to home as possible.

One of the key opportunities in *fresh* is the recognition that there is a small but potent emerging local food sector in Edmonton that is actively producing, processing and marketing a range of fresh products. There are small to medium scale businesses which are under local ownership and/or leadership. This emerging sector also includes community organizations, farmers’ market organizations, pre- and post-secondary education institutions, restaurants, grocery stores, food trucks, urban and peri-urban farmers, small-scale processors, community supported agriculture, fresh food box programs and business associations, among many others, that are creating opportunities within the local food sector in Edmonton.



Again, it must also be recognized that local food and urban agriculture are part of a broader network of activities and relationships, in particular across the Capital Region, but also extending in all directions from Edmonton. For example, many of the vendors represented at Edmonton's farmers' markets are from the greater Edmonton region, some are from other regions and some are from outside of Alberta. The implementation of this Strategy will require regional and provincial partnerships to explore opportunities beyond those found just within Edmonton's boundaries.

Figure 1: Shades of Local



The range of how local food can manifest within an urban setting can be further illustrated by Figure 2. Urban agriculture, shown from a land use perspective, may or may not be the primary use of urban lands. For example, urban residential lands or inner urban lands may have the land use zoning designated as primarily residential land-use, however, agricultural production (such as horticulture) may be feasible in community gardens or backyard gardens as a secondary use. In peri-urban areas, agricultural production may take place on lands zoned for agriculture as the primary land-use and offer additional opportunities for agri-tourism, agri-related commercial developments, education and recreation as secondary uses.



Figure 2: Peri-urban to Inner Urban Core Transect



	PERI-URBAN	URBAN RESIDENTIAL	INNER URBAN	INNER URBAN CORE
	Peri-urban	Urban		
FOOD PRODUCTION	<ul style="list-style-type: none"> • Larger tracts of farmland • Market Gardens • Hobby Farms • Small livestock • Bees and Hens 	<ul style="list-style-type: none"> • Backyard Gardens • Edible landscaping in parks and public right of way • Community gardens and orchards • Possibly bees and hens (pilot) 	<ul style="list-style-type: none"> • Community gardens • Rooftop gardens • Private (condo) food gardens • Edible landscaping in parks and public right of way 	<ul style="list-style-type: none"> • Rooftop gardens • Private (condo) food gardens • Edible landscaping in parks and public right of way
PROCESSING	<ul style="list-style-type: none"> • On farm processing and preserving 	<ul style="list-style-type: none"> • Neighbourhood Food Hub / satellites 	<ul style="list-style-type: none"> • Food Hub (community food centre) 	<ul style="list-style-type: none"> • Food Hub (community food centre)
STORAGE & DISTRIBUTION	<ul style="list-style-type: none"> • Aggregation center • On-farm cooler and dry storage 	<ul style="list-style-type: none"> • Cellars 	<ul style="list-style-type: none"> • Community root cellars • Fresh box delivery 	<ul style="list-style-type: none"> • Community root cellars • Fresh box delivery
BUYING & SELLING	<ul style="list-style-type: none"> • Farm gate sales • Rural farmers' markets 	<ul style="list-style-type: none"> • Farmers' markets • Grocery stores 	<ul style="list-style-type: none"> • Farmers' markets • Grocery stores • Food programs 	<ul style="list-style-type: none"> • Farmers' markets • Food programs
EATING & CELEBRATION	<ul style="list-style-type: none"> • On farm tastings • Home consumption 	<ul style="list-style-type: none"> • Home consumption • Restaurants 	<ul style="list-style-type: none"> • Food trucks, Restaurants, Patios • Cooking programs • Community kitchens 	<ul style="list-style-type: none"> • Street festivals, Food trucks, Restaurants, Patios • Community kitchens
WASTE & RECOVERY	<ul style="list-style-type: none"> • On farm waste management • Reduced packaging at farm gate 	<ul style="list-style-type: none"> • Residential composting • Restaurant food waste pick • Reduced packaging 	<ul style="list-style-type: none"> • Condo / home composting • Reduced packaging • Office composting 	<ul style="list-style-type: none"> • Reduced packaging • Office composting program
EDUCATION & GOVERNANCE	<ul style="list-style-type: none"> • Training and Incubation farms for new farmers • Extension services • Provincial crop and farm research • University programs • Opportunities for new immigrants • Farmer training 	<ul style="list-style-type: none"> • Training for urban gardeners • School programs • University programs • Urban gardener training • Food preparation • Nutritional advice 	<ul style="list-style-type: none"> • Training for urban gardeners • School programs • University programs • Urban gardener training • Food preparation • Nutritional advice 	<ul style="list-style-type: none"> • Training for high tech urban gardeners • Urban gardener training • Food preparation • Nutritional advice





HOW THE STRATEGY WAS DEVELOPED

3.1 Public Consultation and Engagement

The moment the City of Edmonton embarked upon its Food and Urban Agriculture Strategy, it was clear that a significant public consultation and dialogue would not only be part of the process but a key consideration in the findings and recommendations. With that in mind, an Advisory Committee was formed in October of 2011 comprised of a diverse range of stakeholders and experts in agriculture, food systems, economic and community development and land development. City staff and consultants supported the Advisory Committee as they developed the Strategy using extensive research, expertise and public consultation.

Edmonton's emerging local food sector is propelled by strong citizen participation, and therefore, our citizens are uniquely placed to offer their insight. Over 3000 Edmontonians participated in one way or another in our consultation process, and stakeholders from many diverse areas of urban agriculture shared their views and opinions.

Consultation and public engagement have inherent challenges in achieving broad citizen reach, but this process targeted citizens through a wide array of mechanisms and gathered the ideas and passions of a significant number of Edmontonians. The process not only reached a broad audience, but also aimed to involve some

people in a more thorough and engaged discussion. It was important to hear what people thought about the issues, but also to hear how they understood and dealt with the complexities and implications of the decisions to be made.

THE METHODS OF ENGAGEMENT INCLUDED:

- Citizen panels
- Stakeholder workshops
- Public opinion survey
- Landowner survey
- Food in the City Conference
- Website, email list, blog and Twitter
- Open houses
- *fresh* feedback survey

Considerable efforts, including research, consultation, discussion, analysis and coordination with other City plans and initiatives, have been undertaken to develop this strategy. It has presented a unique opportunity to engage Edmontonians in a conversation about food and urban agriculture, and the Advisory Committee is grateful to everyone that took part in this process. *fresh* could not have been completed without the interest and support of all who participated.

It is difficult to reduce a complicated and rewarding process to a few selected high-level observations and findings, but some clear themes and patterns did emerge in the public consultation phase.

THE MOST OFTEN-HEARD THEMES AND IDEAS WERE:

- Available urban spaces for food production need to be increased
- Access to local food for consumers must be improved
- Prime agricultural land should be protected
- Local food should be celebrated
- Food and community cohesion are closely linked
- Balanced growth is vital
- Economic opportunities for local food businesses must be improved
- Education, awareness and promotion around local food needs to be increased
- Infrastructure for food and urban agriculture related businesses must be enhanced
- The coordination of resources and information sharing should be strengthened
- The City of Edmonton needs to take a strongly supportive role in all of the above

In addition to the most often heard themes, Appendix 5 includes a synthesis of how all the Strategic Directions and Recommendations are linked to the various consultation reports. This illustrates the connections between the Strategy and what we heard from our engagement process so that there is a clear line of sight from our consultation to the Recommendations. The full breadth of information gathered for the Strategy is freely available to the public.

All the research and consultation reports can be found at www.edmonton.ca/foodandag. These reports include the following:

- **Citizen Panel Report** – A summary of the recommendations made by the Citizen Panel process undertaken in partnership with the Centre for Public Involvement
- **Stakeholder Group Summary – Round One** – A summary of the discussion and feedback gathered during the first round of stakeholder workshops led by the project consultants
- **Stakeholder Group Summary – Round Two** – A summary of the discussion and feedback gathered during the second round of stakeholder workshops that were led by the project consultants
- **Public Opinion Survey Report** – A summary of the findings from the online survey that was available during the month of June 2012
- **Landowner Survey Report** – A summary of the online survey that was sent to landowners in the three Urban Growth Areas to identify current and future uses of land
- **fresh Feedback Survey Report** – A summary of the findings from the online survey that was available in early October 2012 to gather feedback from the public on the draft of *fresh*
- **Agricultural Inventory and Assessment** – An inventory of agricultural lands and activities within Edmonton with a focus on the Urban Growth Areas
- **Local Food Opportunities Report** – A review of six initial opportunities for the Strategy to help bolster the emerging local food economy.

3.2. Aligning with Key City Plans

Edmonton's food system is complex in nature, with wide ranging impacts. A comprehensive and pragmatic food and urban agriculture strategy therefore needs to focus on what change can be affected by Edmontonians and the City. This means *fresh* needs to integrate well into existing City plans, priorities and budgets.

Edmonton has embarked on a comprehensive process to chart its social, financial, environmental and developmental pathways, through the creation of a suite of documents that lay out Edmonton's aspirations on the key fronts that will shape the city's future. The Food and Urban Agriculture Strategy was developed as part of the ongoing process of creating a better Edmonton through coherent and integrated planning, and although some of the key City documents are more relevant to the Food and Urban Agriculture Strategy than others, the following provides a brief overview of the directly relevant plans. More detailed information on the alignment between the Food and Urban Agriculture Strategy and other City policies can be found in Appendix 3.



The Way Ahead

The Way Ahead is the City's strategic plan for growth over the next 30 years. It highlights that Edmonton is an "energy city," a city of design, a recreation and arts city. Four principles underpin *The Way Ahead*. These are: Integration, Sustainability, Livability, and Innovation. This is relevant to this Strategy in that all City of Edmonton planning processes must be filtered through these four principles.

The Way We Grow

The Way We Grow is the City's principal planning document and the Food and Urban Agriculture Strategy Terms of Reference are drawn from it. In fact, *The Way We Grow* contains the city's first ever reference to food and agriculture systems. *The Way We Grow* is designed to guide the city's growth and development, and it examines how the City will address Edmonton's regional relationships, future land use, growth patterns and transportation systems (in coordination with neighbouring municipalities). It lays out a holistic and integrated approach toward city building, with an emphasis on economic, social, environmental, cultural and financial sustainability.

The Way We Finance

The Way We Finance will be the City's financial sustainability plan, and it will outline guiding principles to ensure continued sound fiscal management and long-term financial sustainability. Development of *The Way We Finance* will involve an assessment of policy options and strategies to optimize the City's sources of revenue and financial stewardship. The policy and strategy framework that it will provide will guide City Council and Administration towards a long-range financial plan. Although *The Way We Finance* is not yet complete, there will likely be a strong connection made between the fiscal sustainability of the City and various land uses within Edmonton, including land used for agriculture.

The Way We Prosper

The Way We Prosper is a comprehensive economic development strategy for the City. It will focus on what it means to achieve the goal of "diversifying Edmonton's economy". Five broad goals have been developed for *The Way We Prosper*: a confident and progressive global image, internationally renowned as a powerhouse of industry, an unrivalled, competitive business climate, an environment for innovation, a vibrant, livable city. All of these align well to support the economic development aims of **fresh**.

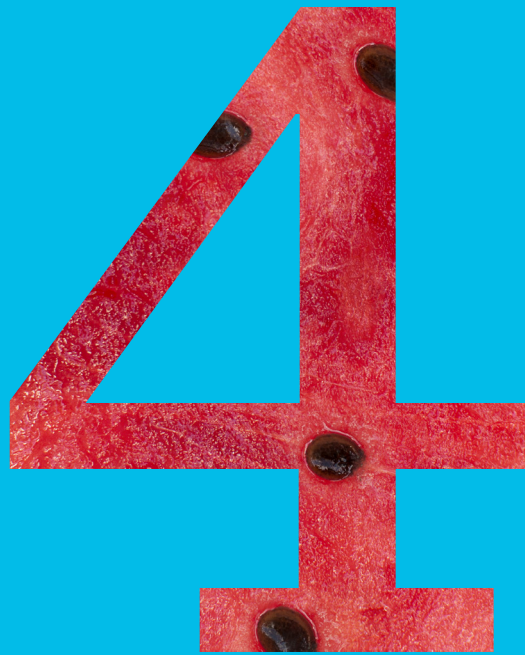
The Way We Move

The Way We Move comprises the City's master transportation plan, increasing awareness about our current reliance on the automobile, calling for expansion of the LRT and other transit, as well as better walkways and cycle corridors. *The Way We Move* was co-developed with *The Way We Grow*, which stresses the link between land use and transportation. Land use is a key consideration in this Strategy, and issues of transportation and movement, and in particular public transit, are highly relevant to the ways in which all land uses are discussed in Edmonton.

The Way We Green

The Way We Green, the City's environmental plan, focuses on two essential points: sustainability and resilience. Its goals highlight healthy ecosystems, sustainability, energy resilience, and that we pursue a "resilient food and urban agriculture system that contributes to the overall sustainability of the city."





FOOD SYSTEMS AND FRAMEWORKS

fresh. EDMONTON'S FOOD & URBAN AGRICULTURE STRATEGY

4.1 The Elements of a Food System

At the heart of *fresh* is a systems approach to food and urban agriculture.

This approach recognizes that all parts of the system are linked and interwoven and that creating a thriving local food culture and economy means paying attention to all aspects of the food system. Part of the job of this strategy is to connect the dots and recognize that each element of the food system is mutually reinforced by the other elements and, when considered as a whole, a systematic and deliberate approach to creating a more resilient and thriving local food economy is both feasible and desirable. Figure 3 illustrates these key food system elements.

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- **FOOD PRODUCTION** involves land and space for growing/raising food as well as the support systems necessary for urban and peri-urban farmers.
 - **PROCESSING** involves transforming raw goods into market-ready and value-added products. Processing can be at a commercial or community scale (e.g. commercial and community kitchens respectively).
 - **STORAGE AND DISTRIBUTION** involves the cold, dry and frozen storage of foods making their way to wholesale and retail locations and the facilities required to effectively distribute food products to customers.
 - **BUYING AND SELLING** the purchasing of food for individual to institutional purposes. This involves the food wholesale and retail sectors including restaurants, grocery stores, farmers' markets and others.
 - **EATING AND CELEBRATION** involves the preparation and enjoyment of food, community recognition for the health benefits and value of local food production and preparation.
 - **FOOD WASTE AND RECOVERY** involves the systems to manage waste generated from the food system, such as reducing packaging and the amount of food that is wasted pre-consumption. It also includes diverting organic materials for composting.
 - **EDUCATION AND GOVERNANCE** involves the many levels of learning and knowledge transfer around growing, preparing, preserving, enjoying food, and the health benefits derived from food, as well as how communities choose to link food systems into policy and decision-making.



Figure 3: Elements of a Food System

4.2 Strategy Frameworks

The following three diagrams outline the interlocking nature of the key elements of this Strategy. This visual framework for Edmonton’s Food and Urban Agriculture Strategy has three main components:

- ① **Core Structure (Figure 4):** A diagram that connects the Food and Urban Agriculture Strategy’s Vision, Goals, Objectives to its Strategic Directions and Recommendations.
- ② **A Strategy for all of Edmonton (Figure 5):** A spatial lens that provides a context for looking at the opportunities for urban agriculture in the different areas of Edmonton, from the downtown core to the peri-urban areas.
- ③ **Strategy and Food System Links (Figure 6):** A graphical depiction of the connections between the Strategic Directions and the food system, providing a holistic perspective of the various opportunities available across the food system.

Taken together, these three components of the Strategy Framework offer a high-level visual context that supports the specific recommendations of this report.

4.2.1 CORE STRUCTURE

To ground the development of the Strategy, the Advisory Committee approved the use of the Strategic Goal statement from *The Way We Grow* for use as the Vision:

Edmonton has a resilient food and agriculture system that contributes to the local economy and the overall cultural, financial, social and environmental sustainability of the city.

Five key Goals were then developed to act as a foundation, to frame and guide the work on the Strategy. These Goals are supported by corresponding Objectives. The Strategic Directions reflect the themes gathered from the public and stakeholder consultations and provide clear direction to achieving the Goals and Objectives.

Following are the Goals and a description of the success that would result from realizing each:



A stronger, more vibrant local economy: Food and urban agriculture in Edmonton contribute more significantly to the creation of community wealth. There are more jobs and business opportunities in the local food and agriculture sectors. As a result, Edmontonians have more opportunities to buy, share and enjoy local and regional food.



A healthier, more food secure community: Everyone in Edmonton has access to enough nutritious, safe and culturally-appropriate food. People have more opportunities to learn about and participate in the local food system. Local food is more accessible to everyone and individuals, families and communities are encouraged to grow, prepare, preserve and purchase and celebrate local food.



Healthier ecosystems: The local food and urban agriculture system positively contributes to the overall health and ecosystem services that green spaces provide. Areas of high biodiversity, environmental sensitivity, and ecological significance are protected. Food and urban agricultural areas are managed in ways that support wildlife habitat, conserve water use and are environmentally sustainable.

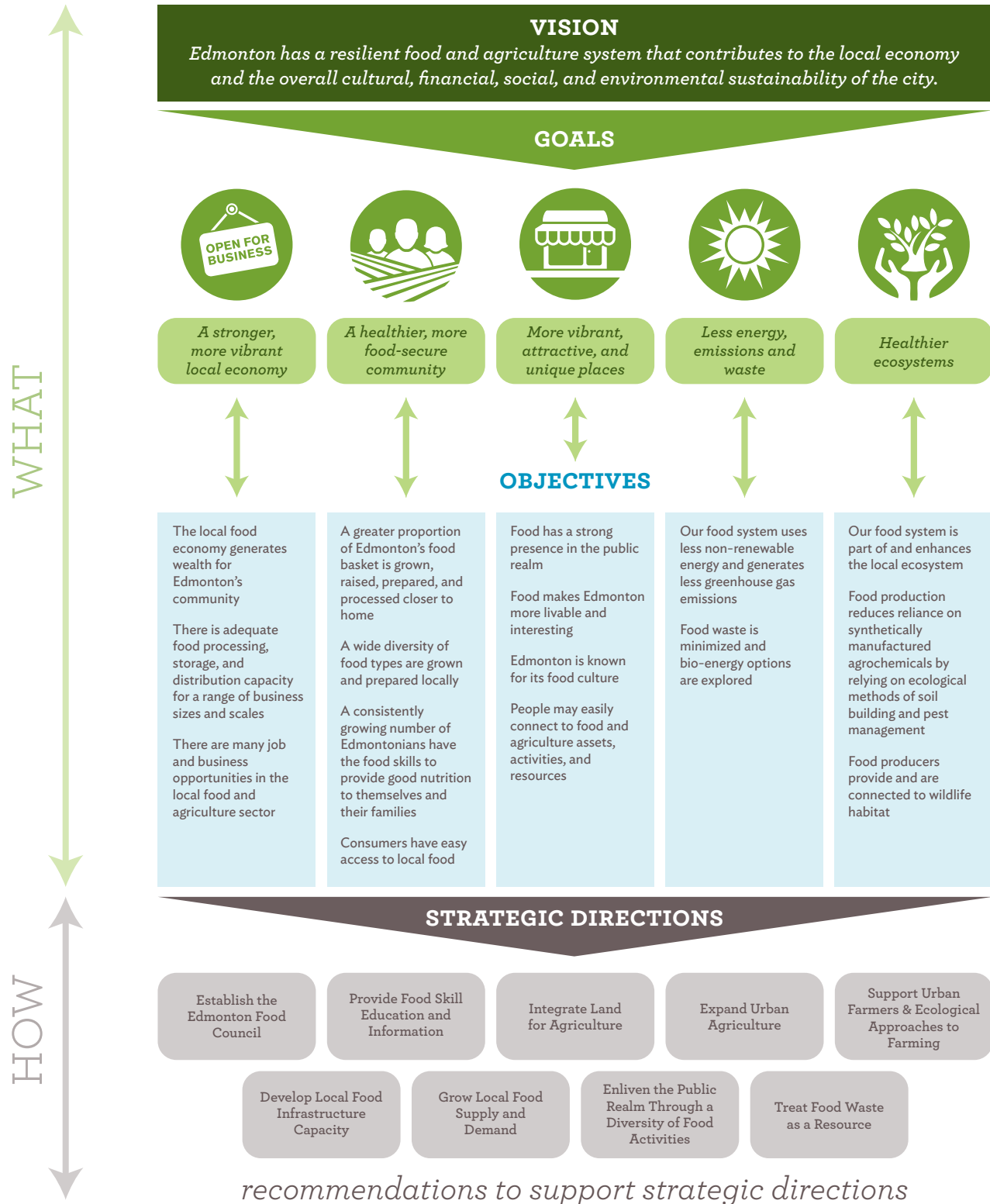


Less energy, emissions and waste: The local food and urban agriculture system is highly energy efficient and generate little waste. The food system reduces dependence on non-renewable energy, thereby reducing greenhouse gas emissions. Instead, alternative renewable energy is used, such as energy generated from agricultural by-products and food wastes, which are also composted to improve soil quality. Less solid waste and air pollution are generated during the producing, transporting, distributing, marketing, packaging, eating, and recycling of food.



More vibrant, attractive and unique places: Food and urban agriculture create and contribute to vibrant, attractive, and unique places for Edmontonians and visitors. Public and private spaces are designed to use food as a way to enhance the local food culture, celebrate food, and animate and enliven shared spaces. Visitors to Edmonton appreciate and experience the local food culture. Food growing, processing, buying, selling, and eating places are all accessible at the neighbourhood level.

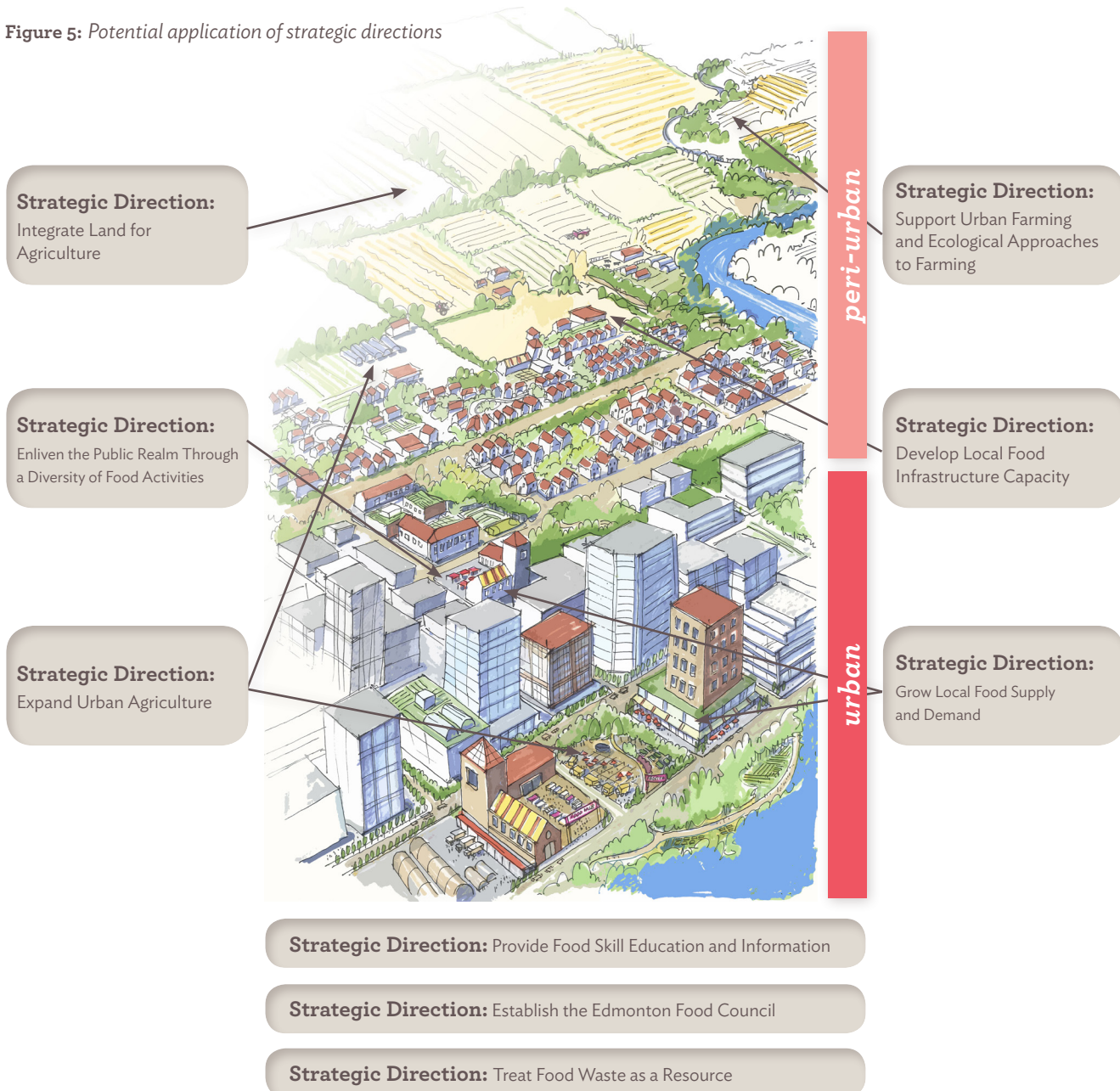
Figure 4: Core Structure



4.2.2 A STRATEGY FOR ALL OF EDMONTON

Edmonton has a great diversity of areas within its boundaries. Opportunities for food and urban agriculture vary depending on where they occur. For example, in Edmonton's developed urban core the range of activities may include rooftop gardening or vertical gardening on a balcony. Further away from the core, in mature areas and suburbs, there may be more community gardens and backyard gardens. In peri-urban areas there may be opportunities for market gardens, nurseries and greenhouses. Figure 5 represents how urban agriculture activities can be dispersed across the city, and how the Strategic Directions may apply to all parts of Edmonton.

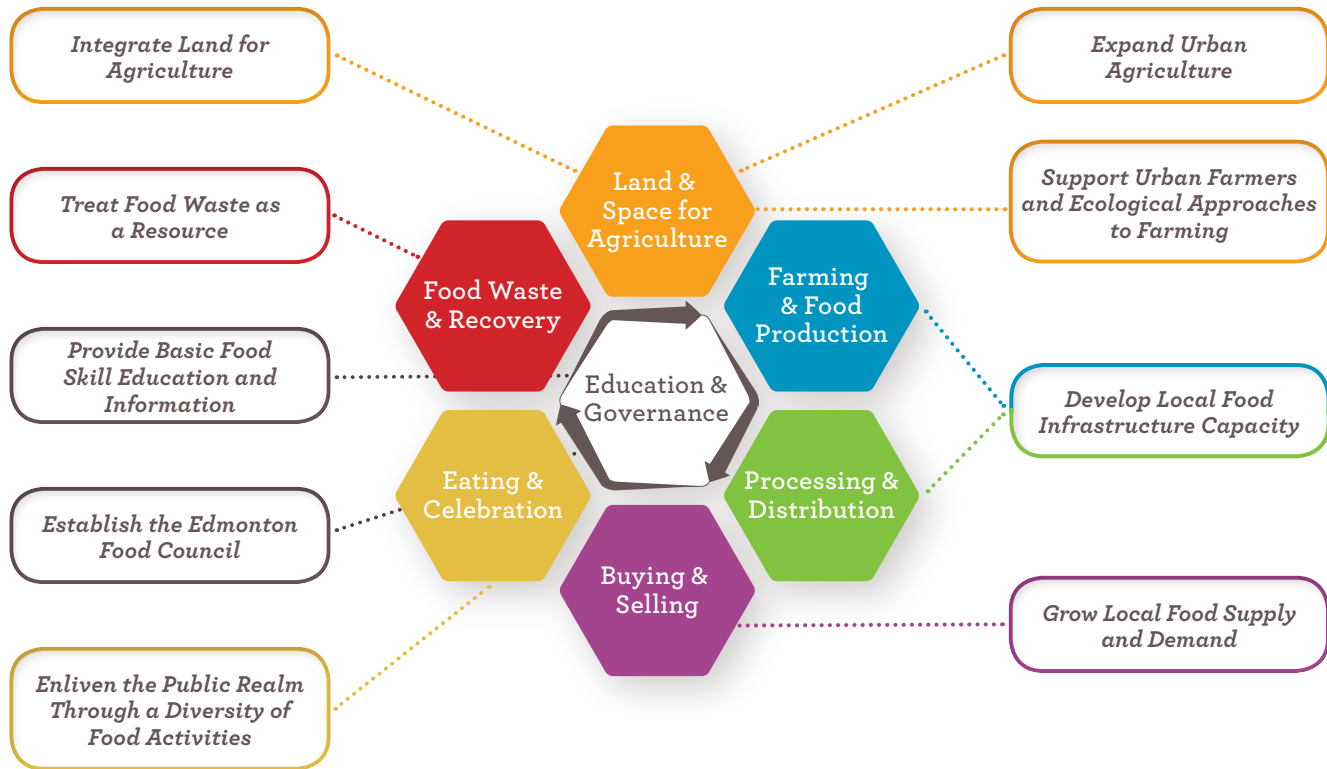
Figure 5: Potential application of strategic directions



4.2.3 STRATEGY AND FOOD SYSTEM LINKS

The food and urban agriculture system encompasses the various stages that a raw food product goes through. A systems perspective provides a tool to check that the opportunities being explored are comprehensive and mutually supportive. Traditionally local governments focused more on the land for food production, but more recently have begun to look at the social, environmental and economic opportunities across the other stages of the food and urban agriculture system. Figure 6 depicts the key dimensions of the food system and how the Strategic Directions relate to each.

Figure 6: Key dimensions of the food system







5

STRATEGIC DIRECTIONS AND RECOMMENDATIONS

fresh includes Strategic Directions and each is supported by specific Recommendations. The Recommendations contained in this section provide direction and actions that will help to realize the Vision, Goals and Objectives, taking advantage of the strong relationships, assets and opportunities that already exist in Edmonton. Future adoption and implementation of the Recommendations will position the City of Edmonton to become a leading example for municipal food and urban agriculture initiatives.

The placement and numbering of the Strategic Directions and their Recommendations do not denote a hierarchy, or an order in which they are expected to be addressed. They are numbered simply for organizational and reference purposes.

It is also important to note that although the Recommendations are generally directed to the City of Edmonton (including both City Council and Administration) this does not mean that the City of Edmonton is the only party responsible for taking action to realize them. There are numerous partners and supporters who will be expected to participate in implementing the Food and Urban Agriculture Strategy. In fact, the energy, enthusiasm and commitment of every one in Edmonton who grows and enjoys local food will be required in order for *fresh* to succeed. That circle of partnerships includes community groups, of industry leaders, of the federal and provincial governments, of developers, of neighbourhood associations, of farmers and gardeners, of retailers and restaurateurs.

Many of the Recommendations contain examples of initiatives or actions that may be undertaken. The examples are provided as a starting point and are not meant to be exhaustive. As the work gets underway and particular projects and initiatives evolve, there will no doubt be other opportunities for action that will arise.

A number of the Strategy's Goals, Strategic Directions and Recommendations may be achieved in the short-term, but there is no doubt that many are ambitious and will require a number of years to be fully realized. This does not mean we shouldn't embark on the journey, only that we must acknowledge that we are not going to arrive tomorrow.

5.1

Education & Governance

strategic direction:

ESTABLISH THE EDMONTON FOOD COUNCIL



5.1.1 CONTEXT

The City of Edmonton's Municipal Development Plan, *The Way We Grow*, specifically includes direction to establish an Edmonton Food Council (EFC). This point was highlighted when the Terms of Reference were created for the development of the Food and Urban Agriculture Strategy. It was also strongly supported by stakeholders and the community during the consultation phase as a key pillar in implementing the Strategy and in making Edmonton a leader in food and urban agriculture over the long term.

But what is a food council? Typically, a food council brings together stakeholders from various food-related sectors to examine how the food system is operating and to advise on how to improve it. Food councils may take many forms, sometimes commissioned by government and sometimes through a strong grassroots and community effort. Food councils have been successful at educating officials and the public, shaping policy, improving coordination between existing programs and starting new initiatives.

Over 200 towns and cities across North America have formed food councils. These councils have a range of roles and responsibilities, but all provide a formal avenue for a broad range of individuals and organizations with food and agriculture related interests to network and provide service to the greater community. Some councils are closely linked to municipal decision-making and have clear lines of communication with municipal government, while others have an arm's length relationship to local government and are more focused on grassroots action. Generally, food councils in Canada and the United States are advisory bodies to city councils, providing staff and elected officials with a single point of connection to a broad network of food and urban agriculture initiatives and perspectives. They provide guidance and implementation support to municipalities in the diverse and complex social and political climate of food and urban agriculture.

5.1.2 RECOMMENDATIONS

① **Establish the Edmonton Food Council (EFC) by June 1, 2013.**

The EFC will represent a broad set of interests with a mandate to advise on matters of food and urban agriculture and to take an active role in supporting the implementation of the Strategy. Activities of the EFC could include, but are not limited to:

- proposing priorities and a work plan to the City by December 31, 2013
- providing advice on food & urban agriculture issues
- identifying emerging issues and potential solutions
- monitoring and reporting on progress of the Strategy
- playing a networking and connecting role between the many partners involved with implementing the Strategy
- facilitating collaboration between City departments and linking the City to community partners
- hosting community forums and undertaking other forms of engagement and education on food & urban agriculture topics

② **Explore the creation of an Edmonton Food Charter.**

One of the key directions from *The Way We Grow* was the creation of an Edmonton Food Charter. The Advisory Committee discussions recognized that although food charters can be useful, and have been in other jurisdictions, the strong foundation provided by the Vision and Goals of this Strategy may serve the same purpose as that of a food charter. At the same time, the Advisory Committee also acknowledged that the development of an Edmonton Food Charter could be undertaken in the future if the community and stakeholders felt it necessary.






③ **Provide appropriate supporting resources to the EFC,** which might include:

- i. At least one full-time staff position to support the EFC.
- ii. An operating budget and clerical support for meetings.





5.1.3 LINKS TO GOALS

STRATEGIC DIRECTION 1: Establish the Edmonton Food Council	
GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	<p>The Edmonton Food Council will support the goals of the Strategy and can offer support specific to:</p> <ul style="list-style-type: none"> • Starting new initiatives • Providing advice and information to the City and the community • Shaping public policy • Improving coordination between existing programs and initiatives
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	
 <p>HEALTHIER ECOSYSTEMS</p>	
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	



strategic direction:

PROVIDE FOOD SKILL EDUCATION AND INFORMATION

5.2.1 CONTEXT

In today's world, our understanding of where our food comes from has substantially diminished and our connection to the food system is broken. As a result, people in communities of all sizes have lost basic food growing, preserving and preparing skills. Edmonton is no different, although we do have organizations and initiatives in place that are addressing this knowledge gap and acknowledging the links between basic food skill education and health. Food skill education can take many forms, from active programming (such as cooking lessons at community kitchens and gardening workshops in community gardens) to more passive strategies (such as signage around demonstration gardens and community orchards).

There is a need to increase the capacity and opportunities for people to build and sustain relationships and networks, improve partnerships among new and existing organizations, increase consumer knowledge, increase participation in food growing, preserving and preparing activities and generally raise awareness for all citizens.

Yet while there are a wide range of food-related organizations, businesses, and institutions involved with food skill education there is no central place that links them and creates a forum for networking, leveraging resources, supporting promotion and marketing efforts by providing food and urban agriculture information, events, and initiatives.






Food skill education (as well as other topics in the Strategy) can be supported and facilitated by a central educational resource that enables access to an array of food system information. Throughout the consultation, people said an online information centre would be a fundamental resource. In addition, we heard that strong collaborative efforts to develop and support education and training opportunities by various community, educational and city agencies would be vital.

5.2.2 RECOMMENDATIONS

- ① **Work with the Edmonton Food Council and various partners (such as Northlands, the University of Alberta, NAIT and others) to provide multiple learning opportunities on key food and urban agriculture topics and initiatives.** Using multiple forms of media (e.g., presentations, print, radio, social media), such forums may include but are not limited to:
 - Food policy presentation/discussion
 - Basic food skill education such as growing, preserving, and cooking
 - “Buy local” and “eat local” campaigns
- ② **Work with partners such as Northlands to enhance existing capacity for information sharing amongst the many organizations, businesses, agencies and institutions involved in food and urban agriculture.**
- ③ **Create a single portal for a wide-range of food and urban agriculture information and education.** This could include information on topics such as:
 - How to find a community garden plot
 - How to access health and safety information on food processing and preparation
 - Key resources for start-up businesses (e.g. health and safety requirements and resources for food processing)
 - Calendar of food and urban agriculture events
 - Culinary programs that have a local food component
 - Online engagement tools such as food asset mapping
 - Links to other information sources
- Links to the Edmonton Food Council and other city departments with a role in implementing the Strategy
- Information for new urban farmers on a range of topics such as accessing land, rules and regulations for farming in the city, micro-loan programs, support programs, farmer networks, ecological farming practices and more
- A farmer-to-landowner match program that connects land available for lease with farmers looking for land
- ④ **Assess and map Edmonton’s food system assets.**
 - i. Develop an open-source online tool to map the various food assets in Edmonton’s food system, including food processing, storage, distribution and retail. This information would provide a baseline from which to measure progress on implementation of the Strategy.
 - ii. A key component of the asset map tool is the development of relationships with partners, and the ability for anyone to contribute to the mapping. Food assets could include but are not limited to:
 - Agricultural land
 - Community gardens
 - Grocery stores
 - Farmers’ markets
 - Food and culture-related gathering places
 - Street vendors
 - Local food restaurants
 - Food festivals
 - Meal programs provided by social service agencies

- ⑤ **Support mentorship and training for urban agriculture.** Develop learning programs in partnership with key organizations such as Northlands, educational institutions and community projects at the neighbourhood level. Possible examples include, but are not limited to:
- Employment programs for vulnerable populations through a partnership with social service agencies and local food businesses
 - Using existing community assets (e.g. community gardens, community leagues, canning and cooking clubs) as anchors for neighbourhood level learning programs, such as food production, processing, preservation, and cooking
 - Partnering with culinary programs to pilot urban agriculture learning programs and innovative projects in neighbourhoods and communities

5.2.3 LINKS TO GOALS

STRATEGIC DIRECTION 2: Provide Food Skill Education and Infrastructure	
GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	<p>New and existing businesses can increase capacity and networking opportunities by consolidating the wide range of information on rules, regulations, and resources for starting a new food business, learning where to access consistent supply and high-quality local food and sponsorship opportunities. Food skill education will increase consumer awareness around local food and shift part of household spending to local food businesses.</p>
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	<p>Broad-based food skill education will increase participation in food growing, preserving, and preparing activities and will help to increase healthy food options for Edmontonians. An online food information centre could provide networking, resource sharing, and overall coordination capacity for the organizations involved in providing food skill education.</p>
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	<p>An online food information centre can provide information on food and agriculture related events, patios in the city, food truck locations, community gardens, farmers' markets, and other important food places in Edmonton.</p>
 <p>HEALTHIER ECOSYSTEMS</p>	<p>An online food information centre can provide information, links and resources for topics such as ecological farm practices and best practices in farmland stewardship in order to support a shift to more ecologically sound food and urban agriculture activities.</p>
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	<p>Providing information to farmers, food processors, and others on how to reduce food and packaging waste will increase energy efficiency in the food system.</p>

5.3

Food Production

strategic direction:

EXPAND URBAN AGRICULTURE



5.3.1 CONTEXT

Urban agriculture is the practice of cultivating, processing, and distributing food in and around towns and cities¹. It has been increasing in popularity in Edmonton and has expanded from the familiar private backyard garden into community spaces such as parks, school grounds, vacant lots and boulevards. Currently, there are over 60 community gardens in Edmonton (many of which have waiting lists) and dozens of organizations engaged in urban agriculture activities. As well, Edmonton has large scale commercial market gardens within its boundaries.

There are multiple reasons for this growing interest in urban agriculture, including having more control over what we eat and where our food comes from to building a better understanding of the connection between food and health, the local economy and the environment. New growing techniques and technologies that allow food to be grown almost anywhere are also helping to drive this change. Hydroponics, SPIN farming, aquaponics, container gardens and vertical growing systems, among other methods, are becoming more available as production alternatives. There are also several demonstration and research projects and initiatives in Edmonton exploring the opportunities behind non-soil based food production.

Building on this new interest, the City of Edmonton could play a significant role in encouraging the practice of food growing in urban areas in safe and effective ways, through guidelines, regulations and permitting. The City can also enable and facilitate by increasing public awareness, brokering partnerships, removing barriers and creating opportunities for businesses, providing initial operational and material support to organizations, and leading by example with initiatives such as edible landscaping. Capitalizing on Edmonton's existing strengths and assets in urban agriculture will lead to strong growth and benefits to many, including small businesses, non-profits, community groups, and citizens. The public benefits could include a more resilient local food supply chain, increased community participation in the food system, a greater diversity of fresh food sources, healthier ecosystems and improved efficiencies in the distribution of food.



¹ Bailkey, M. and J. Nasr. 2000. *From Brownfields to Greenfields: Producing Food in North American Cities*. Community Food Security News. Fall 1999/Winter 2000:6

5.3.2 RECOMMENDATIONS

① Pursue urban agriculture opportunities in existing and developing neighbourhoods, including but not limited to the following:

- i.* Creating an inventory of public and private lands in the city that could be used for a variety of urban agriculture activities.
- ii.* Creating and apply guidelines to integrate urban agriculture into public spaces, such as streets and boulevards, parks and plazas.
- iii.* Considering the development of an edible landscaping strategy with fruit trees and edible plants that will grow in the Edmonton climate and are on the allowable plant list and in the Urban Parks Management Plan.
- iv.* Exploring opportunities for agro-forestry
- v.* Working with developers to provide land and infrastructure for urban agriculture, for example for:
 - community gardens (including beds, tool sheds, soil and water hook-ups)
 - community orchards, food forests and berry patches.
- vi.* Evaluating the “agri-hood” model currently being developed for the City Centre Lands for its effectiveness and potential as a demonstration for how other developers/builders in Edmonton can integrate food growing areas into new and redeveloping neighbourhoods.

vii. Working with home builders to provide information to home buyers on top soil depth requirements for growing a range of food crops.

viii. Assessing the regulatory barriers for green roofs in order to encourage food production on rooftops.

ix. Encouraging more urban agriculture activities for public recreation and public benefit on portions of Municipal Reserve, or on negotiated non-credit Municipal Reserve lands (for example for community gardens and orchards, outdoor eating and gathering areas, walking paths with edible landscaping).






② Develop partnerships to support innovation in urban agriculture including:

- i.* Working with partners (such as Northlands, NAIT, University of Alberta) to test innovative technologies and approaches for producing and processing food in urban spaces.
- ii.* Exploring the feasibility of alternative energy sources for greenhouse food production (e.g., utilizing waste heat in greenhouse production) with partners such as the University of Alberta and Northlands.

- ③ **Support for-profit urban and peri-urban agriculture**, including:
 - i. Assessing regulatory barriers to allow and encourage urban compatible food production, processing and selling activities (e.g., garden gate sales) within residential and other zones.
 - ii. Considering the creation of specialized business permits, regulations and guidelines for commercial urban agriculture operations that encompass health and safety requirements and good-neighbour practices for a range of production types, such as market gardens, sharing backyards and non-soil-based forms of production (e.g. greenhouses and aquaponics).

- ④ **Examine opportunities for citizens to keep bees and raise hens.**
 - i. Partner with local non-profits to assist in the evaluation of the implications of allowing urban bee keeping. City staff to report findings to City Council.
 - ii. Partner with local non-profits to assist in the evaluation of the implications of allowing urban backyard hens. City staff to report findings to City Council.

5.3.3 LINKS TO GOALS

STRATEGIC DIRECTION 3: Expand Urban Agriculture	
GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	Urban agriculture can provide viable, commercial business opportunities in the areas of food production (and related processing and retailing), and the development and application of new technologies and methods for growing large volumes of food in small spaces.
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	Urban agriculture can help to provide resilience in the event of food supply chain interruptions (from market shifts in commodities or weather events, for instance). It can also help address food-related health and access issues, and increase community participation in the food system.
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	Increasing the diversity and visibility of food-growing in Edmonton adds interest and animation to the public realm. A broad spectrum of urban agriculture activities increases access to the diversity of sources of fresh produce within neighbourhoods.
 <p>HEALTHIER ECOSYSTEMS</p>	Urban agriculture can support urban ecosystem services such as stormwater management and habitat areas for songbirds, bees, and other species.
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	closer to home shortens the supply chain, enabling energy and organic matter to be more efficiently recycled. As well, the need for packaging can be decreased and transportation efficiencies can reduce energy use.



strategic direction:

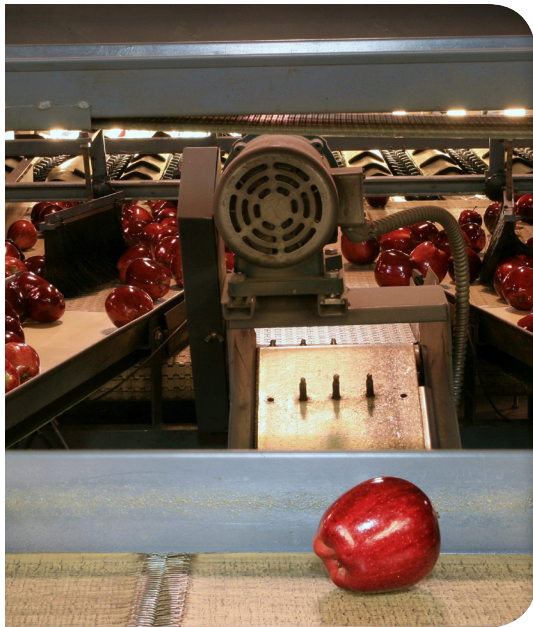
DEVELOP LOCAL FOOD INFRASTRUCTURE CAPACITY

5.4.1 CONTEXT

As local food production increases, there will be greater demand for the infrastructure required to get products efficiently to market, including processing, storage and distribution capacity. Currently in Edmonton, there is a lack of infrastructure for small to medium-sized businesses to effectively access wholesale and retail markets. Increasing local processing, storage and distribution capacity would create opportunities for businesses to provide Edmonton, and the region, with a wider range and volume of local food products. This creates efficiency and convenience both for local food businesses and for local food consumers. Much of the value in the food system is concentrated in the infrastructure part of the chain, often called “the middle”.

Rebuilding “the middle” of the food system between production and consumption requires a holistic view of a resilient food system. This holistic approach also requires that we recognize the diversity of scale and players involved in our local food system. The infrastructure needs of private businesses would not be the same as the infrastructure needs for organizations and groups at the community and neighbourhood level, such as community leagues and other non-profit groups. For example, appropriate warehouse spaces for medium-sized local food businesses require different supports than upgrading community league halls with certified commercial kitchens. Addressing the gaps for all players involved strengthens the food system as a whole.

One specific example of local food infrastructure is the food hub concept. As a growing practice across North America (some in partnership with local governments) food hubs are centrally located multi-purpose facilities that have the capacity to perform various business functions. Typically food hubs involve clustering mutually beneficial activities together for multiple users,



gaining the benefit of coordinating these activities in one location. Food hubs often create opportunities for small scale producers to access services that they could not individually, like marketing, distribution, customer liaising, processing and selling to wholesalers.

The food hub concept is flexible, and any food hub venture will reflect the needs of the suppliers and customers involved in creating that food hub enterprise. As a result, the purpose, activities and users of foods hub could vary greatly. Some food hubs are designed primarily for commercial uses, to give businesses access to storage,

aggregation, and distribution services. Other food hubs may have a more customer and social focus, with services such as retail space or a farmers' market, educational and cultural programs, operating space for non-profits or special event venues. The point is that good things happen when people congregate and cooperate around food.

Improved food system infrastructure benefits would include the ability to add-value and prepare goods for market, warehouse and cold-store products, gather similar products together from multiple producers and ensure that health and safety regulations are met.

5.4.2 RECOMMENDATIONS





- ① **Assist in creating appropriate spaces and opportunities for local food businesses to operate and expand.** Work closely with key partners such as Northlands and businesses of diverse sizes and interests within the processing, storage, distribution, wholesale and retail parts of the local food system to identify the needs and gaps in infrastructure capacity.
- ② **Pursue partnerships with private business and other economic agencies and examine establishing a commercial/private sector Agri-Food Hub.** Work with key partners and stakeholders, such as Northlands and the Province of Alberta, to envision and test the feasibility of a food hub for Edmonton. Possible functions of the food hub could include, but are not limited to, the provision of a certified commercial kitchen, a permanent farmers' market location, extension services for producers, and aggregation, storage and distribution capacity. Ensure the Edmonton Agri-Food Hub complements other food

hubs in the region (such as the Leduc Food Processing Development Centre).

- ③ **Assist in improving neighbourhood-scale food infrastructure.** Working closely with community organizations, community leagues, and the Edmonton Food Council to identify and improve existing facilities and programs with appropriately scaled infrastructure. This could include the creation of small-scale neighbourhood food hubs, upgrading to commercial kitchens, purchasing processing and storage equipment, and other initiatives based on the needs and resources of specific communities and neighbourhoods.

5.4.3 LINKS TO GOALS

STRATEGIC DIRECTION 4: Develop Local Food Infrastructure Capacity

GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	Local food infrastructure can provide capacity for business start-ups and be scaled to meet the needs of local producers. Jobs are created to operate these facilities and the capacity to add value to food products is increased.
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	Increasing the capacity for local food processing, storage and distribution results in more local foods available to customers. Food hubs can also provide important food education resources such as community kitchens.
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	Food hubs can be active, vibrant places that become the heart of a community, as well as provide a visitor attraction.
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	Improved infrastructure increases opportunities for efficiencies, including those that help address energy use, emissions and waste. There may also be expanded opportunities for green energy technologies with new or improved infrastructure projects.



5.5

Buying & Selling

strategic direction:

GROW LOCAL FOOD SUPPLY AND DEMAND



39

5.5.1 CONTEXT

More and more people are choosing to buy local foods through farmers' markets, farm gate stands, restaurants and mainstream retail outlets. The expanding demand for local food has begun to move up the supply chain, bringing a new wave of entrepreneurs and transforming how wholesale purchasers can source their products. However, local food is not always conveniently available and as a result there is a gap between consumer's preference for local food, and what they actually spend their food money on.

A Resilient Food System

As the Advisory Committee worked through the Strategy development process, it faced some fundamental questions, not all of which can be answered by this Strategy or in a single, multi stakeholder process. A number of these fundamental questions about building a local food system include:

- How should cities develop specific strategies in order to ensure a resilient local food supply system?
- Is the purpose of this system to protect citizens from major shocks to the food supply system, and/or to enable and encourage local supply and demand for local foods, together with foods from farther away?

- If so, what is "local" in that context – within city limits, the region, within a 600km radius?
- By food supply resilience, do we mean just in the foods we grow for local use rather than export?
- Given the challenges of achieving a fully self-sufficient local food system, should we set our sights on a percentage target of local fresh food that we aspire to produce locally?
- What is the role of innovation and technology in food production in terms of self-sufficiency, such as non-soil based growing techniques?
- To what extent does food self-sufficiency require land preservation within the city limits or within the region?

This Strategy makes tangible strides to expand, diversify, and strengthen local food production and urban agriculture in our city – and it provides a framework to build a robust local food system. It does not mark the endpoint of a process in determining supply and demand targets for a resilient food system. It provides a first footprint, and further steps are necessary.

Steps in Growing Local Food Supply and Demand

Growing local food supply and demand is opportunity-driven, and there are multiple approaches to achieving this aim across the food system. From a retail perspective, leveraging the existing strengths and assets in Edmonton will be key. One example would be improving access to local foods by strengthening our farmers' markets. In terms of marketing efforts for local products, a labelling or identification system for local products and services would bolster the growth of the supply and demand. In turn, this would encourage more mainstream retailers and wholesalers to make more local foods more readily available.

In addition, the City of Edmonton has an opportunity to lead by example by creating a local food purchasing policy. This could encourage other large organizations, like educational institutions, hospitals, and large corporations to follow suit, thereby creating a significant impact on local food demand.

Public sector community food hubs can focus on the opportunities that stem from involving and gathering people together in smaller scale food and urban agriculture activities, differing in purpose and focus than the commercial and Agri-food hub recommended under the previous Strategic Direction. These activities might include social services such as a food bank, a fresh food box program, space for non-profits, special event venues, educational and cultural programs and workshops and diverse opportunities to access employment in food and urban agriculture. A community food hub is also an ideal venue and tool to address the social issues of hunger and access to healthy foods. Vibrant community food hubs also contribute to increasing the number of people who are involved in helping to grow the supply and demand of local food.

5.5.2 RECOMMENDATIONS

- ① **Request that the Edmonton Food Council examine local food system resilience** by analyzing appropriate outcomes, measures and targets for local food production.

- ② **Create partnerships to strengthen and diversify the local food economy, including but not limited to:**
 - i.* Investigating locations of existing facilities/programs that could be used for local food business incubation (e.g. Northlands' sites).
 - ii.* Identifying opportunities to increase the availability of local food within mainstream wholesale and retail food distribution.
 - iii.* Leveraging innovative technologies to expand emerging local food businesses being conducted, for example, in regional research facilities and post-secondary institutions.

- ③ **Strengthen farmers' markets**, this could include:
 - i.* Supporting the development of new markets to increase demand and provide opportunities for new and emerging vendors.
 - ii.* Developing innovative approaches and supports to strengthen and sustain Edmonton's existing farmers' markets.

- ④ **Increase local food purchasing within City of Edmonton operations**, which could include:
 - i. Setting local food targets and establishing contract terms for suppliers to increase these targets over time.
 - ii. Increasing purchases of local food products for cafeterias, concessions, catering and vending machines within City of Edmonton facilities.
 - iii. Using the results of the above to help develop local food procurement policies for the City of Edmonton.
 - ⑤ **Work with the Province of Alberta and other industry stakeholders such as Northlands to develop a made/raised/grown-in-Alberta identification system.**
-
- ⑥ **Pursue partnerships with non-profits and other agencies such as Community Food Centres Canada to establish a public sector Edmonton Community Food Hub.** Possible functions could include social services such as a food bank, a fresh food box program, space for non-profits, special event venues, educational and cultural programs and workshops and small scale commercial opportunities that provide access to employment and training in food and urban agriculture.

5.5.3 LINKS TO GOALS

STRATEGIC DIRECTION 5: Grow Local Food Supply and Demand	
GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	Increasing the dollar value of the local food economy allows more investment to be kept in the community. Locally spent dollars work harder and generate more profit and income for a range of local food businesses across the food and urban agriculture value chain.
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	Linking the demand for fresh, high-quality food to local supply through programs and facilities increases the availability and accessibility of local food for all of Edmonton.
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	Establishing places to purchase, taste and experience local food offers a unique opportunity to create exciting places that are buzzing with activity.
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	Buying food that is grown/raised/made closer to home can reduce energy costs and the need for packaging perishable items often associated with long-distance travel.



strategic direction:

ENLIVEN THE PUBLIC REALM THROUGH A DIVERSITY OF FOOD ACTIVITIES

5.6.1 CONTEXT

Food is the great place-maker. It is evident every day that food plays an integral role in our lives and that we enjoy the time we spend accompanied by food: the coffee break, the business lunch, dinner with friends, weekend brunch, dinner and a movie, holiday meals with family. Food draws people to plazas and streetscapes, and people draw more people, and so on, until a space that might normally be quiet and underutilized is suddenly full of life. Edmonton, Canada's Festival City, is no stranger to animating public spaces with music, street life, entertainment and food—with targeted events such as the What the Truck?! Festival, A Taste of Edmonton, Heritage Festival or indirectly through outdoor cafes and farmers' markets.

People also tend to flock to where good food is being made, served and enjoyed. Whyte Avenue and 124th Street have their fair share of food destinations and enjoy success attracting people and activity. Many of Edmonton's food trucks sell out even before the lunch hour begins. With all of the chefs, restaurants, cafes and food trucks—not to mention community gardens and other high-visibility food places—Edmonton is well on its way to building a vibrant food culture. Strengthening and supporting this emerging food culture to make Edmonton a great food city is a natural opportunity.






5.6.2 RECOMMENDATIONS

- ① **Celebrate and promote local food producers, community gardens and food grown, raised and made in Edmonton** through such initiatives as:
 - i. Creating an annual Local Food Festival or partnering with other festivals.
 - ii. Partnerships with the Ministry of Tourism and Northlands to coordinate sponsorship, timing, location and promotions.
 - iii. Engaging local food producers, chefs, restaurateurs and food businesses, as well as immigrant group associations and social service providers, to participate in celebrations and events.
- ② **Examine City regulations to allow, where appropriate, permanent and temporary sidewalk patios** which could:
 - i. Enable restaurants, cafes and pubs in all areas of Edmonton to have seasonal patios.
 - ii. Encourage patio requirements in the construction of new streets and sidewalks and the permitting of new buildings.
- ③ **Support a wide range of food retail in new and existing neighbourhoods to promote convenient pedestrian access to healthy food sources.**
 - i. Investigate the impacts of placing restrictive covenants on grocery store sites and exploring the City's means to halt such practices.
 - ii. Enable fresh food kiosks and mobile markets to locate in or near "food deserts" and pedestrian traffic areas such as LRT stations, community centres and sports complexes.
- ④ **Continue to build on the success of street vendors**, which could include:
 - i. Encourage more vendors to participate.
 - ii. Support the *What the Truck Festival* and/or hosting a food truck day as an important and unique part of Edmonton's food culture.



5.6.3 LINKS TO GOALS

STRATEGIC DIRECTION 6: Enliven The Public Realm Through a Diversity of Food Activities

GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	<p>Creating places that attract people for multiple reasons is good for business. Supporting small business development in Edmonton, specifically in the local food sector, helps to establish great food places.</p>
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	<p>Neighbourhood-scale food retail increases geographic access to fresh food sources and provides more opportunity for more people to include fresh food in their diets. Having visible aspects of food such as edible landscaping and sidewalk patios as part of Edmonton's landscape increases exposure to Edmonton's food culture and helps to increase awareness about the health and joy that food can bring to individuals and families.</p>
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	<p>Food in public and semi-public places (e.g., streets, sidewalk patios) creates more vibrant, attractive and unique places for Edmontonians and visitors.</p>



5.7

Food Waste & Recovery

strategic direction:

TREAT FOOD WASTE AS A RESOURCE



5.7.1 CONTEXT

Food waste occurs throughout the food system: excessive production, product deemed unfit for sale; excessive purchasing practices; spoilage due to delivery or purchase delays, inappropriate and ineffective processing resulting in quality portions wasted; damaged and lost food as a result of excessive transportation and motion throughout the food system.

The biggest contributor to food waste in Canada is from households, driven by consumer behaviours that are often based on the lack of knowledge and understanding of basic food skills². Changing consumer behaviour is a complex and lengthy process, but will ultimately require greater efforts to raise awareness and to provide information and education.

Education and awareness can also help people identify opportunities to make the best use of quality food that is diverted from the landfill – also known as gleaning. The most appropriate use for quality food that isn't sold is to get it to people who are in need. This opportunity can be addressed using different approaches, whether a non-profit social service model, a business model, a social enterprise model or a combination of these approaches.

Edmonton already has an award-winning waste management system. With curbside residential pick-up and composting already in place, the City has a unique opportunity to use its existing system to pursue greater excellence. This could include improving reduction of non-organic food waste, such as packaging, an expansion of current composting programs or exploring the business opportunities in producing energy from waste heat.

By adopting initiatives to treat food waste as a resource, Edmonton can realize significant gains towards the goals and objectives of the Strategy and improve the lives of its residents.

² <http://www.valuechains.ca/documents/Food%20Waste%20in%20Canada%20112410.pdf>.

5.7.2 RECOMMENDATIONS

① **Develop partnerships to assist in the redistribution of healthy, fresh and high-quality surplus food.**

These partnerships could include:

- i.* Expanding and coordinating existing gleaning initiatives to provide comprehensive gleaning of surplus food from various sources, such as backyard gardens, urban farmers, fruit harvests and food retail and processing sources. The gleaned food would be redistributed to social service providers.
- ii.* Identifying and utilizing neighbourhood locations, such as the proposed Community Food Hub and community league facilities, where surplus food can be processed in a community kitchen and redistributed.
- iii.* Developing more business opportunities for produce that is of good quality but does not meet the standards of existing retailers.

② **Develop partnerships and initiatives to utilize and reduce food waste.**

This could include:

- i.* Providing information and raising awareness on best practices for reducing food waste in households and businesses.

- ii.* Developing food waste tracking tools and systems to better monitor and divert food waste.
- iii.* Developing business opportunities with partners such as Northlands for food waste, such as recovering food for animal consumption, composting and energy recovery and generation, including the reuse of cooking oil and waste heat electricity.
- iv.* Initiatives to reduce water usage throughout the food system.

③ **Take a leadership role in promoting initiatives to reduce the volume of packaging associated with the food system,** including:

- i.* Gradually eliminating the use of disposable cups, cutlery and plates throughout City operations.
- ii.* Advocating for the use of recycled material and biodegradable packaging in commercial processing and packaging businesses.





5.7.3 LINKS TO GOALS

STRATEGIC DIRECTION 7: Treat Food Waste as a Resource		
GOAL	LINKS	
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	<p>Like the recycling industry, the organic waste recovery sector may become a business opportunity as environmental regulations become stricter and demand for services and soil amendment increase.</p>	
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	<p>By gleaning fresh, healthy, high-quality food from retail businesses, backyards and urban/peri-urban farms, good food can be made available to those in need.</p>	
 <p>HEALTHIER ECOSYSTEMS</p>	<p>Composting of organic waste provides essential soil amendments for urban and peri-urban agriculture operations. Reducing food-related packaging reduces waste going to landfill and also reduces the use of resources.</p>	
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	<p>Reducing and diverting waste means less greenhouse gas emissions from decomposing waste, fewer trips to the landfill, and more efficiency in material flows.</p>	

5.8

Food
Production

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strategic direction:

SUPPORT URBAN FARMERS AND ECOLOGICAL APPROACHES TO FARMING

5.8.1 CONTEXT

fresh supports growing more food closer to home. Having agricultural land within Edmonton is only one part of the equation – food growing needs farmers. Although conventional farmers may be aging and diminishing in number across Canada, we can take advantage of the growing interest in urban farming to encourage more young farmers. If we are to realize the goals of this strategy and make the best use of available agricultural lands in Edmonton, the emerging practice and profession of urban farming will need to be supported in a variety of ways. This will require collaboration among many groups and stakeholders, for example addressing regulatory barriers, bolstering the education and training available for urban farming, finding incentives to encourage more urban farmers, assisting with business development and supporting long-term commitments to farming.

The advantages of encouraging urban farming within the City are not limited to increasing the availability of local foods, improving public health and strengthening the local economy. Well managed agricultural land can also provide a wide-range of ecological goods and services, including fuel, wildlife habitat, soil conservation nutrient cycling, air purification and stormwater treatment³. Agricultural lands are also beneficiaries of ecological services. Healthy ecosystems can provide soil renewal, climate regulation, plant biodiversity, nutrients and precipitation³. Ecological services can also reduce the need for other inputs and investments, such as soil amendments and stormwater treatment facilities³. Last but not least, healthy ecosystems provide Edmonton residents recreation and leisure opportunities in scenic natural landscapes.






³ Zhang, W., Ricketts, T., Kremen, C., Carney, K., Swinton, S. (2007). Ecosystem services and dis-services to agriculture. *Ecological Economics*, 64: 253-260.

5.8.2 RECOMMENDATIONS

- ① **Create partnerships with key stakeholders to provide education and training about ecological approaches to urban farming and urban agriculture in Edmonton**, which could include:
 - i. Assisting in the establishment of an incubator farm where new urban farmers may receive mentorship and training in the technique and business of sustainable urban farming. Partnership opportunities could include the University of Alberta, NAIT, Northlands and the Province of Alberta.
- ② **Identify options for providing incentives to new and emerging urban farmers, including the possibility of leasing City-owned land to urban farmers.**
- ③ **Examine regulations and guidelines for urban and peri-urban agriculture**, which would consider such factors as health and safety, buffers and transition areas, limits on chemical applications, noise, dust and odour, among others.
- ④ **Identify mechanisms to protect and maintain the healthy ecosystems that are connected to peri-urban agricultural lands.** For example, in Edmonton peri-urban agricultural lands could provide ecological value as links to the River Valley system and natural areas.

5.8.3 LINKS TO GOALS

STRATEGIC DIRECTION 8: Support Urban Farmers and Ecological Approaches to Farming

GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	Urban agriculture provides entrepreneurial and job opportunities over the long term.
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	Fresh produce has the most nutritional content closest to when it is harvested, so local produce will provide more nutrient-dense food to Edmonton residents. More production in the city will also mean more access points to fresh local foods.
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	Urban agriculture is visible from the roads and highways around Edmonton. Local productive landscapes have high amenity value and are part of the community identity and draw interest from residents and visitors.
 <p>HEALTHIER ECOSYSTEMS</p>	Environmentally responsible farm practices have a positive effect on the ecosystems in which they exist. These practices can include maximizing the ecosystem services that peri-farmland can provide.
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	Growing produce closer to home can be more energy efficient because of a reduction in transportation costs and less packaging.

5.9

Food
Production

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strategic direction:

INTEGRATE LAND FOR AGRICULTURE

5.9.1 CONTEXT

Edmonton is an increasingly cosmopolitan, diverse and urban municipality—which is one of our strengths. At the same time, this city is one of the few municipalities in Canada with prime agricultural land within its boundaries. This reality presents a range of complexities for those who must determine how much agricultural land should be protected now and for the future, and where it should be located. One of the purposes of **fresh** is to assist City Council to make thoughtful, informed decisions with regards to its agricultural land resource and to evaluate land use plans and development proposals.

Central to the complexity of municipal land use decisions is the issue of growth and ecological footprint. Trying to understand a city's footprint requires a holistic systems approach to account for all the factors that contribute to consumption and growth, including land for energy, housing, food, industrial uses, commercial uses, and natural areas. Cities across Canada have been increasingly concerned with questions of sustainability and accommodating growth.

There is no doubt that higher population densities in cities offer advantages such as economies of scale and the ability to support public transit, community services and other amenities. These advantages translate into

opportunities for cost efficiencies and a lower ecological footprint per person. Population densities in cities also provide the markets to support businesses, which help attract and retain job opportunities and a labour force, thereby creating community wealth.

At the same time, a city's growth needs must be properly balanced in order to manage long-term costs and meet the needs of its population. Careful examination of the costs of providing community services must be factored into a municipality's long-term land use planning decisions. In Edmonton, the recent development of the suite of strategic plans known as "The Ways", signals City Council's intention to begin addressing the complex challenges of growth and sustainability, in particular policies that encourage more compact and sustainable development forms.

It is in this context of Edmonton's growth and ecological footprint that the complex issue of protecting agricultural land is embedded.

The Value of Agricultural Land

One cannot ignore the natural capital inherent in well-managed agricultural lands. The ecological significance of any land is measured by its ecosystem goods and services. Similar to the concept of economic capital, natural capital can provide a continued flow of ecological goods in the form of food, minerals, fuel, forests and so on. These natural assets can also provide services to us, like carbon capture, water treatment and supply, biodiversity, waste assimilation and soil renewal. We must recognize a responsibility for stewardship of these natural assets. The consultation indicated that many people believe that prime agricultural lands should be protected given their inherent value, because “once gone, they cannot be returned”.

In terms of the specific products or goods that can be provided by agricultural land, namely food, we know from the research undertaken for this project that approximately 70% of lands in the Urban Growth Areas have soils classified as prime agricultural soils, or CLI Classes 1 to 3⁴. This represents less than one percent of the prime agricultural lands available in the Capital Region, though it is presently not clear what the future plans are for those regional lands. Currently in Edmonton, the largest agricultural products in terms of growing area are the field crops of canola, wheat and alfalfa⁴. However, the soils in the Urban Growth Areas have a high capacity for growing a diversity of vegetable and fruit crops and therefore represent a high potential value for food production within Edmonton boundaries⁴.

In addition, it is important to recognize the emerging interest and opportunities in the local food sector and the potential value this brings to Edmonton. Producing more of our food closer to home has current and future benefits including; a multiplier effect on local economic development, agri-tourism opportunities in the food sector, the health-related benefits and cost savings of fresher food, the environmental benefits of ecosystem

goods and services and the potential to reduce food waste and emissions from less transportation. Agricultural land that is accessible to citizens near an urban setting also provides a broader cultural value that is tied to an understanding of our agricultural heritage and where our food comes from.

Priority Areas for Edmonton's Growth

Given Edmonton's high rate of urban growth it was perhaps inevitable that the amount of available agricultural land within our city limits declined recently, mostly through conversion to residential, commercial and industrial development and for use in infrastructure projects such as Anthony Henday Drive.

At the same time, farming has a tough time competing financially with urban development. Some farmers don't invest in their farms because of the lack of certainty over future land uses. Other farmers and landowners have sold, or are planning to sell, their land to developers. In many cases, the existing local context and development policies leave farmers with few options. This can create situations in which where farmers sell their land for development only to lease the land back while developers explore future uses. This creates situations in which some farmers are working the land and advocating for farm use, while having chosen to sell it for development purposes.

Edmonton has identified areas for future growth based on a number of key factors: where there is room to grow, where people can live near workplaces, where there can be a choice of housing options, where cost-effective public transit can be developed, etc.

City Council has also sought to achieve more efficient “smart” growth by promoting compact urban forms. In addition, the Capital Region Board's Growth Plan includes residential density targets, to ensure that land is used efficiently.

⁴ HB Lanarc-Golder. (2012). *Agricultural Inventory and Assessment*. City of Edmonton, Sustainable Development Department, September 2012.



Retaining agricultural land will impact the supply of land used for urban purposes such as housing, commercial and industrial uses, and infrastructure. Depending on scale, location and configuration, retained agricultural lands may also significantly affect infrastructure costs in an area, especially if services have to be built around agricultural lands. Long-term infrastructure cost decisions by the City must acknowledge these issues.

The Complexity of Issues

The Strategic Direction to *Integrate Land for Agriculture* was the most difficult the Advisory Committee tackled. The Committee agreed that some prime agricultural land must be protected for future use and generations, and identified opportunities for more local production within Edmonton. At the same time, Committee members agreed that given the diverse interests represented across the Committee, it could not and should not, be the body to determine how much land should be protected versus developed in specific locations in the Urban Growth Areas. These decisions should be made through existing regulated processes by City Council.

When the Advisory Committee was considering how to find a reasonable balance of land for growth and land for agriculture, there were a number of questions and factors were debated and discussed, including:

- How much farmland do we need in Edmonton to achieve the Goals of this Strategy – i.e. build food security and resilience, local economic development, realize environmental benefits, improve health, and create vibrant places?
- What are the requirements for land to accommodate urban growth and how quickly will the land be needed for such purposes?
- How do we balance a need for agricultural lands with the aspirations of the owners of those lands?
- What are the long-term cost and revenue implications of protecting agricultural land versus developing the land for residential and commercial purposes?
- If we are to protect some agricultural land, what type of farming and food production techniques would we like to encourage on those lands? Are there growing techniques and crops that are better suited to close proximity with urban areas? Are there techniques and innovations that allow us to produce more with less land?
- What is the relationship between our agricultural land needs and those in the Capital Region? Can we rely on the productive farming areas outside the city or do they face similar complex challenges of balancing growth with ecological footprint, urban development with agriculture?

Given the breadth of these variable factors, it is no surprise that the question of establishing a well-informed, principle-driven balance between retaining agricultural land and urban development remained challenging.

The Advisory Committee responded by developing a framework for that ongoing decision making on these issues. This framework provides the tools that will help inform the complex decisions for those elected to make them. It is City Council's role to consider all the interests, plans and priorities of the City and to weigh the implications of specific decisions, both costs and benefits, on proponents, taxpayers and a broad array of community, food sector, business and economic interests.

The Advisory Committee indicated that the evaluation of the implications for any agricultural land use decisions in the Urban Growth Areas should consider the kinds of factors, costs, and benefits that must be fully assessed in making those decisions. These factors would include a balanced and complete analysis of metrics over the short to long term, such as:

- Infrastructure servicing costs added or lost (for example, water, stormwater, sanitation, utilities pipes)
- Tradeoffs from other uses (for example, housing units, tax revenue)
- Land acquisition costs added or lost
- Costs of community services added or lost
- Value added or lost to the local economy
- Number of jobs generated or lost
- Value of ecological services provided or lost (for example, fuel, fish, wildlife habitat, soil conservation, nutrient cycling, air purification, storm water treatment)
- Volume of locally produced foods gained or lost

Preliminary work and input by the Committee on a matrix of these types of key decision factors was provided to City staff for their review and potential use. Appropriate metrics should reflect the values and goals of City Council and the policies in the suite of strategic and visionary plans adopted by the City. Additional example metrics can be found in Appendix 4.

5.9.2 A FRAMEWORK TO INTEGRATE LAND FOR AGRICULTURE

The framework below provides tools for working through decisions on integrating land for agriculture. This framework includes key questions to be answered, a set of principles and criteria, and a suite of possible mechanisms that could be applied to protecting agricultural lands. The framework may be used by City Council to work through the inter-related complexities of the types of land use decisions that come forward through Area Structure Plans, Neighbourhood Structure Plans, and other regulated pathways.

This framework can guide, evaluate, strengthen and implement the agricultural component of land use policies and plans and large-scale development proposals. These tools will assist City Council as it considers the following key questions:

- ① **How much** – how much agricultural land should be protected within the Urban Growth Areas?
- ② **Where** – which lands should be protected and what form (pattern) should this protected agricultural land take?
- ③ **How** – what are the most appropriate tools and mechanisms that the City should employ to protect lands for agriculture?

Principles for Integrating Agricultural Land in Edmonton's Urban Growth Areas

The following principles should help guide the decisions about agricultural land use within the Urban Growth Areas:

- **Fairness** – balance competing interests and respect the rights of landowners
- **Priority** – prioritize the highest quality farmland for protection
- **Certainty** – recognize that long term certainty and clarity benefits all land owners and potential investors including farmers, land developers and the City
- **Viability** – create a supportive policy and regulatory environment for those wishing to farm or pursue urban agriculture such that it can flourish
- **Proximity** – recognize that agricultural lands in close proximity to urban centres have special value and benefit, as do developable lands in close proximity to emerging industry and workplaces
- **Public Benefit** – any decision to protect agricultural land should be based on clear and measurable public benefits, and be consistent with other City-wide objectives
- **Foresight and Adaptability** – any decision mechanism to protect land should be based on our best estimate of future conditions and needs while recognizing that those future conditions cannot be known with certainty and therefore some flexibility is desirable



Criteria for Integrating Agricultural Land in Edmonton's Urban Growth Areas

The following criteria should be used when evaluating proposed land use plans (Area Structure Plans and Neighbourhood Structure Plans) within Edmonton's Urban Growth Areas. These are not “pass/fail” criteria, but rather act as entry points for evaluating and potentially improving land use plans and proposals.

Questions	Criteria
<p>How much land should be protected in the Urban Growth Areas? These criteria should be applied to consider how much land to protect within City boundaries</p>	<ol style="list-style-type: none"> 1. Resources are available for the land to be acquired or secured using the available mechanisms, while adhering to the Principles listed above. 2. The amount of agricultural land is compatible with other City plans and objectives.
<p>Where and in What Form? These criteria should be applied when considering where the protected lands should be located and in what form (i.e. the agricultural land use pattern).</p>	<ol style="list-style-type: none"> 3. The proposed agricultural land includes the best, most productive farmland. 4. The proposed agricultural land is contiguous with other pieces of agriculture land where possible⁵. 5. The land is compatible with neighbouring land uses and potential land use conflicts are manageable. 6. The proposed land use pattern is cost effective to service and supports the growth direction and urban form that Edmonton wants in order to ensure long-term sustainable development. 7. The proposal supports a diversity of urban agriculture/farm types based on the tools/mechanisms available. 8. The proposed agricultural land considers impacts on ecological goods and services, such as protection of sensitive areas, wildlife, stormwater management and so forth. 9. The agricultural land use proposal has taken into account the regional capacity and comparative advantage for similar agricultural use 10. Emerging or alternative food production technologies, options and long-term costs have been explored 11. Impacts from major shocks and disruptions to the local food system have been considered
<p>How? (Ways to Acquire Land for Agriculture) These criteria should be applied to evaluate and select the appropriate mechanism(s) for acquiring agricultural land (<i>see below</i>).</p>	<ol style="list-style-type: none"> 12. The proposed mechanism treats all land owners equitably. 13. It is legal and technically feasible (e.g., is possible under the Municipal Government Act). 14. It is timely to execute and minimizes uncertainty associated with lengthy acquisitions. 15. It is cost effective and efficient. 16. It provides a reasonable balance of certainty and flexibility.

⁵ This criterion recognizes that having contiguous areas of peri-urban farmland supports the principle of “viability” because farmers support each other and certain agricultural services that require critical mass to operate effectively. Other benefits to wildlife and recreation may also be derived from contiguous peri-urban farmland.

Mechanisms to Protecting Agricultural Land

Adoption of the framework would entail an examination and testing of which mechanisms are the most viable, given the circumstances of particular land use scenarios and the legal context in Edmonton and Alberta. The mechanisms that might be applied could include, but are not limited to, the list below. For a complete description of these mechanisms, see Appendix 2.

Mechanism Type	Specific Mechanisms
PLANNING MECHANISMS	Zoning and Land Use Designations
	Cluster Developments – integrating development with farmland
MECHANISMS FOR FAIRNESS AND COMPENSATION	Land and financial contributions from developers
	Community investment
	Transfer of Development Credits
	Land swaps
MECHANISMS TO ENSURE LONG TERM PROTECTION	Land Trust
	Conservation Covenants

5.9.3 RECOMMENDATIONS

- ① **Examine establishing a municipal Agricultural Land Reserve (ALR) designation** to accommodate peri-urban farmland within Edmonton’s Urban Growth Areas. This initiative could involve, but is not limited to:
 - A. Developing a new land use designation in addition to other mechanisms to identify urban agricultural lands.
 - B. Establishing an ALR that could include:
 - i. Privately held farmlands (where owners self declare).
 - ii. Provincial government lands as negotiated with the Province.
 - iii. Lands acquired by a land trust.
 - A. Creating, or partnering with, a land trust to acquire and retain urban farmland
 - B. Transfer of Development Credits
 - C. Community investment
- ② **Examine the costs and benefits of the following tools to secure agricultural land and report to City Council.**
 - ③ **Adopt and apply the “Integrating Land for Agriculture Framework”** to guide future decisions about agricultural land use in the Urban Growth Areas, evaluate land use plans and large-scale development proposals and implement such decisions.
 - ④ **Work with the Capital Region Board to develop a regional agricultural land use policy.** Taken directly from policy within *The Way We Grow* (10.1.1.3), this could include pursuing a regional food council and working to build relationships and interaction among a network of regional players and forces.

5.9.3 LINKS TO GOALS

STRATEGIC DIRECTION 9: Integrate Land for Agriculture

GOAL	LINKS
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p>	<p>Community Wealth Creation: Local food and locally-owned food and urban agriculture enterprises are part of the foundations of a prosperous local economy. The local food economy represents over a billion dollars of economic activity per year. It supports tourism, as visitors look for local food to be part of their visit to Edmonton. Because local food enterprises are generally locally owned, the benefits flow more directly to the community.</p> <p>Growing demand and opportunity: The demand for local food is outstripping supply. More and more food buyers are interested in the health, local economic development and environmental benefits of local food. Expanding the food production capacity within Edmonton can help grow this local food supply and demand.</p> <p>Agricultural Capability: Edmonton's Urban Growth Areas have some of the best soils in the province and favorable climatic conditions of moisture and temperature. This combination of conditions has proven to support a range of commercially viable agricultural products and practices. Soil is a non-renewable resource and it is almost impossible to replace once it is gone.</p>
 <p>A HEALTHIER, MORE FOOD-SECURE COMMUNITY</p>	<p>Resilience and Foresight: Producing and processing some of our food locally makes us less susceptible to food price increases and food supply interruptions. Even if we are not intensively farming the lands today, conserving some agricultural land within the City is a prudent hedge against future changes in energy prices, food prices, climate, natural disasters and geopolitics which may impact the food supply.</p>
 <p>MORE ATTRACTIVE, VIBRANT, AND UNIQUE PLACES</p>	<p>Vibrant places: Edmonton has the opportunity to become a great food city and world leader in food culture and resilient food systems. Local food production and harvesting is the foundation of the food system and the essence of any place that has a great reputation for its food and food culture.</p>
 <p>HEALTHIER ECOSYSTEMS</p>	<p>Environment: Producing and processing food locally can contribute to the conservation of valued green spaces and habitats and decrease environmental pressure elsewhere on the planet. Peri-urban farmland can provide multiple ecosystem services.</p>
 <p>LESS ENERGY, EMISSIONS, WASTE</p>	<p>Reduced energy use and greenhouse gas emissions: Producing and processing local food closer to the point of consumption has the potential to reduce the amount of energy and greenhouse gas emissions associated with travel as well as reduce the need for packaging.</p>

Inspired Market Garden

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ENACTING
THE STRATEGY

fresh. EDMONTON'S FOOD & URBAN AGRICULTURE STRATEGY

Given the complexity of the issues outlined in this Strategy and the scope of the Goals and Recommendations, implementation will occur over time as the Food Council is established, partnerships are formed, research is continued, resources are allocated and progress builds towards results. As noted previously, the Food and Urban Agriculture Strategy is not an endpoint, but a starting point. With that in mind, the Strategy does not provide a detailed implementation plan, but rather sets out directions for moving forward. The Advisory Committee recommends that the City initiate a more comprehensive implementation planning process in collaboration with the Edmonton Food Council.

6.1. Engaging Stakeholders and Potential Partners

We have seen throughout the development of this Strategy that Edmontonians possess an enormous amount of enthusiasm and passion for this issue. The success or failure of this Strategy will certainly depend in large part on whether it manages to engage Edmontonians. Citizens will need to be included in the process, and stakeholders should continue to be consulted. These include, among others:

- the Edmonton Federation of Community Leagues
- the Greater Edmonton Alliance
- industry associations, such as the Urban Development Institute
- other neighbourhood associations
- other groups with related interests
- citizens of Edmonton
- media and food writers

The City of Edmonton can also expect to forge partnerships with many stakeholders, in both the private sector and public sector. These include, among others:

- land developers
- large-scale local, regional, national and international producers
- farmers and processors
- retailers
- the Province of Alberta
- the Government of Canada
- educational and academic institutions
- non profit organizations, such as Sustainable Food Edmonton

The critical question will not be so much understanding who needs to be engaged—since we can generate that information fairly quickly—but rather how they should be engaged, and when. These are the questions that should be addressed in a second-stage implementation plan

by the Edmonton Food Council (EFC) and its members and alliances. Certainly, all partners and stakeholders will be encouraged to enter into the implementation of this Strategy understanding that it carries expectations and responsibilities.

6.2. Oversight: Is It Working?

The creation of the Edmonton Food Council will be a critical factor in both the short-term and long-term oversight and ongoing updating and renewal of this Strategy.

IN RECOMMENDING THE CREATION OF THE EFC, THE ADVISORY COMMITTEE ALSO NOTED MANY FACTORS THAT ARE RELEVANT TO THE IMPLEMENTATION AND OVERSIGHT OF THE STRATEGY, INCLUDING THE SUGGESTIONS THAT THE EFC:

- propose priorities and work plans to the City
- provide advice on food and urban agriculture issues
- identify emerging issues and potential solutions
- monitor and report on progress of the Strategy
- play a networking and connecting role between the many partners involved with implementing the Strategy
- facilitate collaboration between City departments and linking the City to community partners
- host community forums and undertake other forms of engagement and education on food and urban agriculture topics

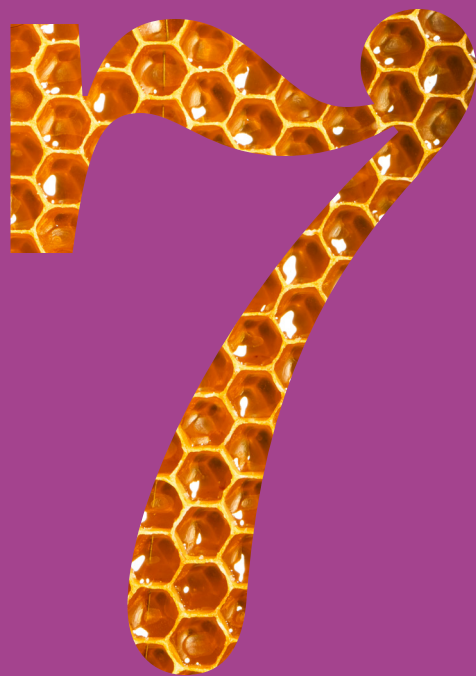
The EFC will not be the only body overseeing the success of the City's Food and Urban Agriculture Strategy. The City will track the efficiency of the Strategy's implementation, as should interested citizens, partners and stakeholders.

6.3. What Success Will Look Like

Many of the Goals and Recommendations stated in this Strategy will be measurable and it is recommended that City Council delegate to the proposed Food Council the role of working with partners to identify appropriate measures for each of the Strategy's Goals and Objectives and to report progress against those metrics, and on the Strategy's Recommendations, to Council on an annual basis. Examples of possible measures specific to each Objective and Goal have been included as a starting point in Appendix 4.

We also know what success will look like by the stories that are told. We'll know our strategy is working if our citizens tell us they have good access to fresh local foods, if we see prime farmland has been protected, if people who work in the local food sector are succeeding, if farmers' markets and neighbourhood food activities are vibrant, if the great diversity of our culture is represented in the foods we buy, cook and eat and if our new neighbourhoods grow and evolve in harmony with a strong food and urban agriculture heritage. *This is what success will look like.*





CONCLUSION: EDMONTON'S FOOD AND URBAN AGRICULTURE FUTURE

7.1 CONCLUSION: Edmonton's Food and Urban Agriculture Future

What is the food and urban agriculture future of Edmonton? This was the simple question—with so many possible answers—that the Advisory Committee wrestled with throughout the creation of *fresh*; and it was a privilege to do so, given the strong feelings Edmontonians have about food and urban agriculture. The intent of this document is to support a systems approach to food and agriculture. This means that we understand each part of the food system and how it is linked to the others and that each element must be successful for the whole to properly thrive.



The elements of that food system include preserving some prime agricultural land for farming, creating space for urban food production, creating access to local markets, stimulating consumer access to local produce as well as awareness and excitement around that produce, and reducing food waste. All of the above are fundamental components of a successful urban food system and **fresh** offers a vision and a plan around how to support each element and link them. No single aspect of the food system can, or should, be considered in isolation. When every dimension of the food system is aligned and integrated, we can create a genuinely resilient and thriving local food culture.

Early in the process the Advisory Committee laid out its five Goals for the future to create a stronger, more vibrant local economy; to foster a healthier, more food secure community; to create healthier ecosystems; to use less energy, and create less emissions and waste; and to create more vibrant, attractive and unique places. We then identified how these five Goals could be achieved through enacting the Strategic Directions and Recommendations.

THE NINE STRATEGIC DIRECTIONS, WHICH FORM THE BASIS OF ACTION FOR THE ENTIRE STRATEGY, ARE TO:

- ① Establish the Edmonton Food Council
- ② Provide Food Skill Education and Information
- ③ Expand Urban Agriculture
- ④ Develop Local Food Infrastructure Capacity
- ⑤ Grow Local Food Supply and Demand
- ⑥ Enliven the Public Realm Through a Diversity of Food Activities
- ⑦ Treat Food Waste as a Resource
- ⑧ Support Urban Farmers and Ecological Approaches to Farming
- ⑨ Integrate Land Use for Agriculture

The goal of the Advisory Committee was to create a strategy that is ambitious, balanced and achievable. If the Recommendations contained in the Strategic Directions are adopted, Edmonton will follow an integrated approach to creating capacity in every element of our food system. Given the growth of our city and the aspirations of our citizens, combined with the fundamental importance of food in our lives, there is great value to be found in this Strategy. It is a long-term agenda and will take many years to fulfill, but now is the ideal time for us to start.





appen- dices

ONE to FIVE

fresh. EDMONTON'S FOOD & URBAN AGRICULTURE STRATEGY

APPENDIX 1. Glossary

The Glossary shown below is intended to provide working definitions of the common terms used in the development of the Food and Urban Agriculture Strategy.

AGRICULTURE	The cultivation of animals, plants, fungi, and other life forms for food, fiber, biofuel and other products.
AGRI-HOOD	A concept from the City Centre Redevelopment project that integrates food growing spaces into a residential neighbourhood.
AGRI-TOURISM	Involves any agriculturally-based operation or activity that brings visitors to a farm or ranch, including buying produce direct from a farm stand, navigating a corn maze, picking fruit, feeding animals or staying at a bed and breakfast on a farm.
AGROFORESTRY	An integrated approach of using the interactive benefits from combining trees and shrubs with crops and/or livestock. It combines agricultural and forestry technologies to create more diverse, productive, profitable, healthy, and sustainable land-use systems. A narrow definition of agroforestry is "trees on farms."
ALTERNATIVE ENERGY SOURCES	Using waste heat or the digestion of organic matter to generate power and heat. Examples include using waste heat for greenhouses and generating power from processing agricultural residues.
AQUACULTURE	The hatching, raising and breeding of fish or other aquatic plants or animals in an urban setting for sale or personal use.
AQUAPONICS	A closed loop system (e.g. water tank) containing plants and fish that share a symbiotic relationship, providing food and cleaning functions. A closed loop system is a self-sustaining system whereby wastes or outputs of one system element is used as a resource or input for another system element.
BUFFER	A strip of land or a fence between one use and another, which may or may not have trees and shrubs planted for screening purposes. A buffer is designed to set apart one use type from another. An appropriate buffer may vary depending on uses, district, size, etc.,
COMMERCIAL AGRICULTURE	Agriculture that is for commercial purposes. Commercial agriculture encompasses large to small scale farming operations.
COMMERCIAL KITCHEN	A type of food processing facility that has been certified by health and safety agencies and contains a range of standard and specialized equipment designed for large volumes.
COMMUNITY GARDENING	The practice of growing and raising food, either as a group or as an individual, in a shared garden space. Community gardens are often located on public lands or undeveloped private land and are the result of a group of people coming together to make land available for gardening. Community gardens often contain raised bed allotment plots, tool sheds, water access, public art and educational signage, among other features.
COMMUNITY KITCHENS	A kitchen used for communal cooking and sharing of meals in a social atmosphere. Community kitchens can be health and safety certified and can provide space for food preservation and preparation classes and activities. Community kitchens are often provided as part of a community centre or other social amenity.

COMMUNITY ORCHARD, BERRY PATCH	Like a community garden, community orchards and berry patches are located on public lands and provide and edible landscapes that produce fruit for communal use.
COMMUNITY-SUPPORTED AGRICULTURE (CSA)	A farming and food distribution model that consists of community members supporting a farm operation with a set fee at the beginning of the growing season, so that growers and consumers provide mutual support and share the risks and benefits of local food production. Members of CSAs then receive proportional shares in the annual output of the participating farm or farms. It usually involves weekly to monthly delivery of vegetables and fruit, and sometimes dairy products and meat.
DEMONSTRATION KITCHENS AND GARDENS	Kitchens and gardens that provide teaching and learning opportunities through demonstration (e.g. container gardening, cooking demonstrations) and are often integrated with other activities and spaces (e.g. within community gardens or centres).
ECOSYSTEM SERVICES	The basics of life provided by natural systems and biodiversity, such as carbon sequestration, water absorption, decomposition of wastes, crop pollination, cleaning of water and air and nutrient cycling.
FARM/URBAN EDGE INTEGRATION	Planning and designing an urban/ farm edge that includes pathways, small market gardens, habitat areas, and other features to ensure compatibility between urban and farm areas.
FARMERS' MARKETS	Public markets that contain a wide variety of vendors and products including local farm produce, honey, meat, cheese and eggs as well as other made and baked food goods. Farmers' markets often operate in parks, streets and permanent facilities and are managed by non-profit organizations.
FARMLAND TRUST	A non-profit organization that acquires and holds farm land in trust and that has preserving farmland as all or part of its mission.
FOOD ACCESS	All people at all times have both physical and economic access to a healthy diet.
FOOD ASSET MAPPING	The practice of physically mapping the location of a range of food assets such as community gardens, local food restaurants, food trucks, food sharing centres, community kitchens, farmers' markets and festivals etc. Analysis on a range of topics can be undertaken based on this baseline information.
FOOD DESERT	An urban area or neighbourhood that has no, or grossly insufficient, access to healthy, affordable and culturally-appropriate foods for local residents.
FOOD FOREST	A low-maintenance sustainable plant-based food production and agroforestry system based on woodland ecosystems, incorporating fruit and nut trees, shrubs, herbs, vines and perennial vegetables which have yields directly useful to humans. Making use of companion planting, these can be intermixed to grow in a succession of layers, to replicate a woodland habitat
FOOD HUBS	A food hub is a place (usually a building or cluster of buildings) that bring together a wide spectrum food and agriculture related activities with the overall purpose increasing access, capacity, visibility, and the experience of sustainable urban and regional food systems within a city. Food hubs can operate as purely commercial, public or hybrid entities.
FOOD MILES	The distance an agricultural product is transported from point of production to point of consumption.
FOOD POLICY	Any governance decision, plan or regulation that affects the way that food is produced, allocated, obtained, consumed or disposed.
FOOD PROCESSING	The transformation of food from its raw state into something that can be stored or eaten. It ranges from basic processing like grading and bagging fresh foods to developing highly refined and packaged foods.
FOOD PROCUREMENT	The process through which large institutions (e.g. schools, hospitals, and universities) purchase food that is served to a wide range of customers. Food procurement practices are often set-out in policy and contractual agreements with suppliers.
FOOD PRODUCTION	Farming and gardening practices that produce raw food products – fruits, vegetables, grain, legumes, meat, eggs, dairy products and fish.

FOOD RECOVERY PROGRAMS	Programs, often led by community organizations, to redirect good and healthy food products considered surplus or not marketable by food industry standards to food programs who redistribute it to individuals and households in need. Food recovery programs are also known as gleaning programs.
FOOD SAFETY	Adherence to rules to ensure that food is handled, prepared, and stored in ways that prevent contamination of food by bacteria, viruses and parasites. Common causes of food-borne illnesses in Canada include Red Tide, Listeria, Salmonella and E. Coli. The Province of Alberta and the Government of Canada are the primary regulators of food safety.
FOOD SECTOR	The range of food-related businesses including farms, ranches, fishing operations, food product manufacturing, farm and food product wholesaling and distribution, food and beverage stores, and food and beverage services.
FOOD SECURITY	Physical and economic access by all people at all times to meet their dietary needs and food preferences for an active, healthy life. Food security includes at a minimum the ready availability of nutritionally adequate and safe foods (approximately 2,000 kilocalorie/day/capita); and an assured ability to acquire foods in socially acceptable ways (e.g. without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).
FOOD SYSTEM	The sequence of activities linking farming/growing, processing, transporting, distributing, celebrating, and recovering food waste in the context of larger natural, social, political, and economic driving forces. Food systems exist on multiple scales: local, regional, national and global. Food systems are defined by the geographic, political, economic, environmental, and social contexts they exist in.
FOOD TRUCKS	Mobile kitchens serving a wide-range of breakfast, lunch, dinner and snack foods. Food trucks often have temporary licenses to operate in high-pedestrian traffic areas. In many cities, food trucks have become an important business incubator and enhance the food experience.
GLEANING	The practice of harvesting food that otherwise might go to waste and channelling it to humanitarian agencies and/or businesses.
GREENHOUSE GAS (GHG) EMISSIONS	Components of the atmosphere that contribute to the “greenhouse effect.” Some greenhouse gases occur naturally, while others come from activities such as the burning of fossil fuel and coal. Greenhouse gases include water vapour, carbon dioxide, methane, nitrous oxide, and ozone.
HYDROPONICS	The cultivation of plants in a nutrient solution rather than in soil.
INCUBATOR FARM	A farm that is managed in a way to provide resources for mentorship and incubation of new farm businesses.
LIVEABILITY	The sum of the factors that add up to a community’s quality of life, including the built and natural environment, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment and recreation possibilities.
LOCAL FOOD ECONOMY	The economic repercussions of food produced or processed within a particular geographic boundary. For this document, local food refers to food grown within a 600 km radius around Edmonton. On the production side, it consists of all businesses involved in producing, harvesting, distribution and retailing of food products. On the consumption side, it includes households, restaurants, grocery stores and institutions (such as hospitals) which provide and or sell food to people as part of their operations.
LOCAL FOOD INFRASTRUCTURE	The facilities such as processing plants, warehouses, permanent farmers’ markets, green grocers and community kitchens among others that enables the local food economy to function.
LOCAL MULTIPLIER EFFECT	The concept that the initial spending or investment in a product or service will lead to more consumption that generates more spending. Often associated with the idea of spin-off industries.
MARKET GARDENS	The practice of growing a range of fresh produce, herbs and other foods for selling to restaurants and other food markets.
MOBILE MARKETS	Non-permanent, mobile markets provide fresh produce and other foods in convenient locations such as transit stations and business districts.

MUNICIPAL RESERVE	A council may, through the Municipal Development Plan, require that a parcel of land or a part of a parcel of land that it owns or that it is in the process of acquiring be designated as municipal reserve, among others including school and environmental. The aggregate amount of land that may be required for the MR under may not exceed 10% of the parcel of land.
NON-SOIL BASED FOOD PRODUCTION	The practice of using other mediums such as nutrient-reinforced water to grow plants and fish. Examples include hydroponics, aquaponics, aquaculture and vertical growing.
PERI-URBAN	Refers to areas that are immediately adjoining an urban area, between the suburbs and rural areas.
PERI-URBAN AGRICULTURE	The practice of farming in areas on the urban edge predominantly tailored for serving urban markets. These areas are iteratively shaped by how cities grow and expand into surrounding areas.
PLACEMAKING	A design strategy to create public spaces that are attractive, interesting, and vibrant. Architecture, landscape, and connectivity to surrounding areas play an important role in placemaking.
POCKET MARKETS	An alternative retail marketing arrangement for connecting urban consumers with local food producers. Pocket markets are often situated in small areas and provide fresh food for sale. This can be managed by a community organization or small business.
PUBLIC GOOD OR BENEFIT	In economics, a public good is something that is essential for human survival that should be available to all members of society without charge, and is not reduced in availability to all by one person's use of it. Air is the purest example of a public good.
PUBLIC REALM	Publicly-owned streets, sidewalks, rights-of-ways, parks and other publicly accessible open spaces, and public and civic buildings and facilities.
RESILIENCE	The ability of a system to absorb disturbance or undergo change in response to external forces while retaining its basic structure and function.
ROOFTOP GARDENS	Areas on rooftops of commercial, institutional, industrial, and other buildings that support food production in some form.
SHELTER BELT	A buffer strip of vegetation to shelter fields from high winds that remove topsoil. Shelter belts can provide habitat and ecosystem services.
SOIL AUGMENTATION	The practice of increasing the amount of topsoil that is replaced in the landscape of newly constructed homes.
SPIN FARMING	A vegetable farming system, usually in urban settings, that makes it possible to earn significant income from land bases under an acre in size. It is considered non-technical, easy to learn, and inexpensive to implement. It stands for Small Plot Intensive farming.
SUPPLY CHAIN	The activities that transform natural resources and raw materials into a finished product that is delivered to the final consumer. In a conventional supply chain, competition along the supply chain acts to maximize the financial return.
URBAN AGRICULTURE (UA)	Urban agriculture is the practice of cultivating, processing, and distributing food in and around towns and cities. It involves applying intensive production methods and (re)using natural resources and urban wastes to yield a diversity of crops and livestock. Urban agriculture could be undertaken in backyard gardens, rooftop gardens, community gardens and urban farms.
VALUE-ADDED PROCESSING	A process through which raw goods are refined into a range of products that are then distributed to a range of restaurants and food retailers.
VERTICAL GROWING	Growing food in stacked trays, on green walls or through other systems to increase growing efficiency in small spaces. Hydroponics is often used in vertical growing systems.
ZONING	Zoning is a method by which municipalities regulate the use of land and built forms that may occupy that land. The Edmonton Zoning Bylaw describes in detail the land uses and built forms that are allowed on a specific property, the regulations by which these uses can operate and the physical characteristics of the built forms that may house those uses. Changes to the Zoning Bylaw require approval by City Council.

APPENDIX 2. Mechanisms

Adoption of the framework would entail an examination and testing of which mechanisms are the most viable, given the circumstances of particular land use scenarios and the legal context in Edmonton and Alberta. The mechanisms that might be applied could include, but are not limited to:

PLANNING MECHANISMS

Zoning and Land Use Designations

Some communities have taken steps to protect and preserve their agricultural land resources by designating land for agricultural use in community plans and zoning bylaws. Non-farm uses are often restricted to ensure that the land is only developed and used for agricultural purposes.

If this mechanism were used, lands for agricultural preservation would be selected based on the principles and criteria. An “Agricultural Land Reserve” designation would be applied in the ASP. This would signal that these lands are intended for long-term agricultural use. The

zoning would remain “Agriculture” or possibly a new agricultural zone applied to allow a broader range of food and agricultural related uses.

Cluster Developments – integrating Development with farmland

Cluster Development (also known as Conservation Development) groups together mixed use and/or residential development in higher density formats to protect the remaining area as open space. The open space could be protected for farmland, ecological conservation and recreational uses.

MECHANISMS FOR FAIRNESS AND COMPENSATION

Land and financial contributions from developers

One method for obtaining agricultural land is to request that developers contribute non-credit Municipal Reserve lands. These lands would be over and above the amount of Municipal Reserve lands typically required by the City for a proposed development plan. The non-credit Municipal

Reserve lands would be made available for urban agriculture. One of the potential benefits to developers who contribute non-credit Municipal Reserve is that this may provide a marketing advantage to attract buyers who desire an area with an urban agriculture amenity.

Land Swaps and Transfer of Development Credits

Some cities allow for the transfer of development credits (TDC). This provides an incentive for residential and commercial development to occur on less productive agriculture land, by directing it toward areas that are already built up or to lands that are less valuable agriculturally. While fairly new to Canada, TDC-type programs have been used in the United States for almost 50 years⁶ (Canada West Foundation, 2012), and provide a means by which farmers can receive financial compensation for protecting their land from development.

The program works by allowing developers to take the number of units (or “credits”) that they would be allowed to build on a parcel of agricultural land (called the “sending area”) and add them to the number of units they are allowed to build in another area, such as an existing residential community (called the “receiving area”). The developer does this by purchasing credits from the landowner. Following this, the owner of the agricultural land signs an agreement (covenant) protecting the land from future development in perpetuity (Canada West Foundation, 2006). In general, sending areas have low real estate prices with increasing development pressures, while receiving areas are able to absorb the additional costs imposed by the TDC program in order to increase density (Canada West Foundation, 2012).

Community Investment

Given the significant and emerging community support in Edmonton for the local food sector, there is considerable opportunity for a model to emerge that allows for community to invest in agricultural lands. This could take many forms, for example using crowdfunding models, creating community bonds, fundraising campaigns, social enterprise funding, cooperatives, and direct contribution from interested investors.

⁶ In the United States, the term given to this program is “transfer of development rights” (TDR), however because the Canadian Charter of Rights does not include property rights, the term “transfer of development credits” (TDC) is more appropriate in the Canadian context (Canada West Foundation, 2006).

MECHANISMS TO ENSURE PERMANENT PROTECTION

Farmland Trust

Farmland trusts are not-for-profit organizations that provide long term preservation of farmland and ranches. They receive farmland through donations or land purchases and hold the land in trust for the public benefit. The farmland is leased out to farmers. They can also utilize covenants (see below) to ensure that the land is always used for farming. Farmland trusts can provide education and resources for farmers and the general public. Trusts can operate at local, provincial and national scales.

Conservation Covenants

A conservation covenant is a long-term commitment to stewardship of private land by a landowner and a conservation organization or government agency (covenant holder). It is a voluntary, written agreement that allows for the permanent protection of desired qualities in an area (either all or part of a parcel of property) according to the terms of the covenant. The covenant holder can enforce the covenant if the landowner does not follow its terms. This form of land protection is possible without requiring the landowner to part with their land, and runs with the land title for all future owners of the land in question, making the protection permanent. Landowners can receive significant tax benefits when granting a conservation covenant on their land. (Hillyer & Atkins, 2005). Programs like this are also called Agricultural Easements and Conservation Easements.

APPENDIX 3. Alignment with *The Ways*

The following table indicates how the Food and Urban Agriculture Strategy intersects with the City's strategic plans – *The Ways*

VISION: Edmonton has a resilient food and agriculture system that contributes to the local economy and the overall cultural, financial, social and environmental sustainability of the city

Goals: Food and agriculture in Edmonton will contribute to:	WAY AHEAD (web version updated 2011)	WAY WE GROW	WAY WE LIVE	WAY WE GREEN <small>Note: many of the strategic actions in <i>The Way We Green</i> duplicate policies in other Way plans, so are not noted in this column</small>	WAY WE MOVE	WAY WE PROSPER <small>Under development</small>
<p>A STRONGER, MORE VIBRANT LOCAL ECONOMY</p> <p><i>Food and agriculture in Edmonton contribute more significantly to the creation of community wealth. There are more jobs and business opportunities in the local food and agriculture sectors. As a result, Edmontonians have more opportunities to buy, share and enjoy local and regional food.</i></p>	<p>Livability Principle excerpt:</p> <p><i>Economic prosperity:</i> Sustainable economic employment and lifelong learning opportunities that build on the skills and contributions of its diverse local and global workforce.</p> <p>Goal: Ensure Edmonton's Financial Sustainability, Corporate Measure - The City has balanced revenue streams that are sustainable</p> <p>Goal: Diversify Edmonton's Economy, Corporate Measure - The City supports the development of high potential sectors</p>	<p>Goal— Supporting Prosperity</p> <p>Edmonton, Alberta's capital city, is home to an innovative and diverse business environment that fosters economic development and supports prosperity</p> <p>Policy 3.2.1.2 Ensure there is sufficient land available to sustain economic opportunities.</p> <p>Policy 6.2.1.8 Support neighbourhood-oriented commercial corridors and local economic development initiatives through the Business Revitalization Zones.</p> <p>Policy 6.3.1.7 Build infrastructure and provide services to support land development, goods movement and ongoing business operations.</p> <p>6.3.1.8 Initiate and participate in strategic economic development initiatives involving governments and industry to capitalize on opportunities for industrial growth.</p> <p>6.3.1.12 Plan new and older industrial areas to be pedestrian friendly, include active transportation linkages, recreational opportunities, ecological connections and other facilities and services that serve industrial workers and contribute to environmental and social sustainability.</p> <p>8.1.5.1 Maintain Edmonton's key role in the Capital Region as a centre for innovation, wealth creation and business and employment opportunities by ensuring a sufficient supply of land for new business and industrial growth.</p> <p>8.1.5.4 Cooperate with the Region's municipalities to attract economic activity to the Region.</p> <p>8.1.5.5 Cooperate with the Region's municipalities to build local economic capacity in the region including agriculture and agri-food industries.</p> <p>8.2.2.2 Recognize that the scope of intermunicipal planning interests may include... Regional assets, such as the Edmonton International Airport, Alberta's Industrial Heartland, Port Alberta, environmentally significant areas and the regional economy and agricultural areas.</p> <p>10.1.1.5 Assess the economic development potential in agriculture and food related industries to identify key opportunities and challenges for expansion of these companies and businesses.</p>	<p>Strategic Policy Direction The City of Edmonton:</p> <p>6.3.5 Partners to encourage innovation and improved productivity.</p> <p>6.3.6 Promotes a diverse, vibrant local and regional economy.</p> <p>6.3.10 Facilitates economic development in communities and neighbourhoods.</p>	<p>Strategic Action The City of Edmonton:</p> <p>3.2.2 Evaluates and understands the full potential of its statutory tools and those of other orders of government (regulations, taxes, and licenses), applying them and/or lobbying for their use to achieve <i>The Way We Green's</i> sustainability and resilience goals.</p> <p>6.7.1 Encourages economic development in sectors that are not energy intensive.</p> <p>6.7.2 Encourages economic development that adds value to Alberta's fossil fuels production.</p>	<p>Strategic Objectives</p> <p>8.1 The City will work with other jurisdictions, the Province and external service providers to ensure that Edmonton has a safe and efficient goods movement network that connects and interchanges well with other facilities.</p> <p>9.1 The City will work with neighbouring municipalities as part of the Capital Region Board to facilitate and implement a comprehensive, coordinated and integrated transportation system that supports the city and Capital Region's mobility, accessibility and economic vitality.</p>	<p>There are five outcomes (approved by City Council in March 2011) envisioned for the economic development strategy:</p> <ul style="list-style-type: none"> • The City supports a competitive business climate and delivers business friendly services. • The City facilitates the development of established businesses and sectors. • The City supports the development of high potential sectors. • The City attracts talent and investment making it nationally and internationally competitive. • The City is an effective participant in regional partnerships and collaboration.

Goals: Food and agriculture in Edmonton will contribute to:	WAY AHEAD <small>(web version updated 2011)</small>	WAY WE GROW	WAY WE LIVE	WAY WE GREEN <small>Note: many of the strategic actions in <i>The Way We Green</i> duplicate policies in other Way plans, so are not noted in this column</small>	WAY WE MOVE	WAY WE PROSPER <small>Under development</small>
<p>A healthier, more food secure community</p> <p><i>Everyone in Edmonton has access to enough nutritious, safe and culturally-appropriate food. People have more opportunities to learn about and participate in the local food system by growing, buying, and celebrating. Local food is more accessible to everyone and individuals, families and communities are encouraged to grow, prepare, preserve and purchase local food.</i></p>	<p>Livability Principle excerpt:</p> <p><i>Access & Affordability:</i> The ability of people of all incomes to have access to affordable housing, food, transit and core social services. The recognition as well that the affordability of amenities affects the overall competitiveness of the city in attracting and retaining residents.</p> <p>Goal: Improve Edmonton's Livability, Corporate Measure - Complete collaborative communities that are accessible, strong, and inclusive with access to a full range of services</p>	<p>Goal— Food and Urban Agriculture</p> <p>Edmonton has a resilient food and agriculture system that contributes to the local economy and the overall cultural, financial, social and environmental sustainability of the city.</p> <p>Policy 5.8.1.9 Seek innovative design approaches to reflect and embrace the culture of Edmonton's new and emerging minority groups.</p> <p>6.5.1.5 Work with Alberta Health Services to foster health services and citizen health across Edmonton.</p>	<p>Strategic Policy Direction The City of Edmonton:</p> <p>2.1.1 Provides, partners and advocates for leisure, social and recreational opportunities.</p> <p>2.1.2 Provides recreation, leisure and social programs to meet the diverse needs of Edmontonians.</p> <p>2.5.1 Builds upon its tradition of festivals and events for all seasons and ages.</p> <p>2.6.3 Partners with other organizations to host events and performances.</p> <p>3.1.1 Provides and partners to deliver services and programs to vulnerable populations.</p> <p>3.1.4 Delivers programs and services in response to changing needs and best practices.</p> <p>3.2.1 Provides, partners and advocates for resources for preventive social services.</p> <p>3.2.2 Partners with community organizations to increase access to <i>preventive services</i>.</p> <p>3.2.4 Promotes innovative community initiatives to strengthen the capacities of vulnerable populations.</p> <p>4.3.3 Partners with regional municipalities to protect the basic public health needs of Edmontonians and Capital Region residents.</p> <p>4.3.5 Advocates for and develops public health policy and programs.</p> <p>6.1.4 Provides enhanced resources and services to <i>high needs communities</i>.</p> <p>6.2.8 Partners to educate Edmontonians about the importance of a <i>community food network</i>.</p>			

Goals: Food and agriculture in Edmonton will contribute to:	WAY AHEAD (web version updated 2011)	WAY WE GROW	WAY WE LIVE	WAY WE GREEN <small>Note: many of the strategic actions in <i>The Way We Green</i> duplicate policies in other Way plans, so are not noted in this column</small>	WAY WE MOVE	WAY WE PROSPER <small>Under development</small>
HEALTHIER ECOSYSTEMS <i>Food and agriculture systems positively contribute to the overall health and ecosystem services that green spaces provide. Areas of high biodiversity, environmental sensitivity, and ecological significance are protected. Food and agricultural areas are managed to support wildlife habitat, conserve water use, and are environmentally benign or restorative.</i>	Livability Principle excerpt: <i>Environment: An environment that is sustainable for current and future generations through responsible social, fiscal and environmental practices. Clean air and water, access to local food supply and the healthy co-existence of natural and urban environments.</i>	<p>Policy 3.2.1.6 Prevent premature fragmentation of agricultural lands in the urban growth areas prior to urban expansion.</p> <p>Policy 7.1.1.2 Acquire and manage the most ecologically sensitive areas in Edmonton.</p> <p>7.1.1.3 Develop procedures to support, encourage and promote innovative ways to acquire, preserve and maintain natural areas and connections on private and public lands, such as land swapping, easements, buffers and bylaws.</p> <p>7.1.1.4 Determine appropriate buffer areas around the periphery of natural areas identified for protection.</p> <p>7.1.1.5 Acquire critical natural linkages and buffer zones to ensure natural areas of ecological value remain sustainable within an urban context.</p> <p>7.1.1.6 Act proactively to acquire ecologically sensitive and environmentally valuable land in the North Saskatchewan River Valley where necessary.</p> <p>7.1.1.7 Public projects, new neighbourhoods and developments will protect and integrate ecological networks, as identified in the Natural Connections Strategic Plan, by adopting an ecological network approach to land use planning and design.</p> <p>7.1.1.9 Work with the Capital Region Board and adjacent municipalities to acquire, protect and restore natural systems and linkages, recognizing that Edmonton's ecological network is part of a larger regional network (see <i>Map 17: Natural Areas and Watershed Sub-Basins</i>).</p> <p>7.1.1.13 Utilize urban agricultural lands to complement and enhance biodiversity, linkages, habitat and the overall health of Edmonton's ecological network, its air and water quality, and its people.</p>	<p>Strategic Policy Direction The City of Edmonton:</p> <p>6.2.9 Promotes sustainable <i>urban agricultural practices</i>.</p> <p>6.2.11 Promotes the use of the highest environmental standards through a civic culture of environmental planning, conservation, preservation and protection.</p>	<p>Strategic Actions The City of Edmonton:</p> <p>3.1.9 Adopts a leadership position in partnership with the Government of Canada, the Government of Alberta, and other local authorities to implement the Plan of Action on Sub-national Governments, Cities, and Other Local Authorities for Biodiversity (<i>Section X/22 Convention on Biological Diversity</i>).</p> <p>3.3.14 Establishes, implements, and maintains policies requiring biodiversity offsets to compensate for trees and wetlands that are lost as a result of the approval of Land Development Applications.</p> <p>3.3.19 Manages Edmonton's ecological network effectively, working collaboratively with other conservation agencies.</p>		

Goals: Food and agriculture in Edmonton will contribute to:	WAY AHEAD <small>(web version updated 2011)</small>	WAY WE GROW	WAY WE LIVE	WAY WE GREEN <small>Note: many of the strategic actions in <i>The Way We Green</i> duplicate policies in other Way plans, so are not noted in this column</small>	WAY WE MOVE	WAY WE PROSPER <small>Under development</small>
LESS ENERGY, EMISSIONS AND WASTE <i>The food and agriculture systems are highly energy efficient and generate little waste. These systems reuse waste heat, agricultural by-products and food wastes to create alternative renewable energy as an advantage for local organizations and businesses. Less solid waste and air pollution are generated during the producing, transporting, distributing, marketing, packaging, eating, and recycling of food.</i>	<p>Innovation Principle <i>A planning approach and operational culture within a municipality that encourages and enables continuous improvement and the exploration and adoption of new techniques, technologies, products and ways of operating in order to improve results and lead progressive change.</i></p> <p>Sustainability Principle Urban planning takes an integrated, holistic view of urban environments and defines sustainability in the context of interrelated ecosystems encompassing economic, social, environmental and cultural sustainability. The principle of sustainability includes financial sustainability, ensuring urban planning recognizes and addresses resource constraints and capacities</p>	<p>Policy 6.3.1.11 Support eco-industrial relationships by facilitating cooperation between businesses on site and design, shared facilities and services and interchanges of energy and products.</p> <p>6.5.1.4 Encourage development of research facilities in partnership with educational and research institutions and companies.</p>		<p>Strategic Action The City of Edmonton:</p> <p>6.4.1 Acknowledges the risk of peak oil and responds to it with strategies that reduce Edmonton's carbon footprint and shorten supply chains that rely on inexpensive fossil fuels.</p> <p>6.4.3 Establishes, implements, and maintains a Renewable Energy Plan detailing the renewable energy options and corresponding transition strategies that are best for Edmonton.</p> <p>6.9.1 Actively studies, tests, and adopts new energy technologies that reduce the City's dependence on fossil fuels and energy consumption.</p> <p>6.9.2 Encourages and assists community partners to explore, test, and adopt new energy technologies that will reduce Edmonton's dependence on fossil fuels and energy consumption.</p> <p>6.9.3 Encourages the growth of Edmonton's renewable energy industry.</p> <p>8.1.2 Influences and supports other orders of government and industry to reduce packaging and design products that do not require disposal.</p> <p>8.1.3 Uses incentives, education, and partnerships to increase the non-residential sectors' participation in waste reduction.</p> <p>8.2.2 Achieves a landfill diversion rate of 90 per cent for residential waste by continuing to focus on recycling, composting, and recovery through the waste-to-biofuels facility.</p> <p>8.2.3 Attracts private sector companies and partners that process waste into reusable and marketable products.</p> <p>8.2.8 Collaborates with the Edmonton Waste Management Centre of Excellence to attract research and technology demonstration projects that advance Edmonton's position as a world leader in sustainable waste management.</p>		

Goals: Food and agriculture in Edmonton will contribute to:	WAY AHEAD <small>(web version updated 2011)</small>	WAY WE GROW	WAY WE LIVE	WAY WE GREEN <small>Note: many of the strategic actions in <i>The Way We Green</i> duplicate policies in other Way plans, so are not noted in this column</small>	WAY WE MOVE	WAY WE PROSPER <small>Under development</small>
<p>MORE VIBRANT, ATTRACTIVE AND UNIQUE PLACES</p> <p><i>Food and agriculture create and contribute to vibrant, attractive, and unique places for Edmontonians and visitors. Public and private spaces are designed to use food and agriculture as a way to enhance the local food culture, celebrate food, and animate and enliven shared spaces. Visitors in Edmonton appreciate and experience the local food culture. Food growing, processing, buying, selling, and eating places are considered at the neighbourhood level.</i></p>	<p>Livability Principle excerpt:</p> <ul style="list-style-type: none"> <i>Welcoming place:</i> Residents are active and engaged in urban life. People feel safe, connected and alive in a vibrant urban centre that values its people, places and activities. <i>Public spaces:</i> Public spaces are generous, magnetic, transformative and alive with activity. <i>Diversity:</i> Parks, recreation, arts and cultural events meet the rich diversity of citizens, the result of productive partnerships between residents and the city in creating projects and programs. 	<p>Policy 4.2.1.3 Accompany residential density increases with enhancements to public spaces and the provision of additional open spaces and amenities, if required.</p> <p>Policy 5.1.1.5 Take a leadership role in facilitating the creation of environmentally sustainable neighbourhoods, buildings and public spaces and encourage private sector approaches to environmental sustainability.</p> <p>Policy 5.2.1.8 Identify and encourage the creation of key pedestrian streets in each quadrant of the city to provide a focus for a walkable urban lifestyle.</p> <p>5.2.1.9 Support neighbourhood commercial centres as community focal points by encouraging small scale residential and mixed use redevelopment and the inclusion of plazas and other social gathering spaces.</p> <p>6.2.1.5 Encourage the introduction of residential uses and community facilities in the redevelopment of older shopping centres to achieve a mix of uses.</p> <p>Policy 6.2.1.10 Revitalize older commercial areas within existing neighbourhoods in association with the Great Neighbourhoods Initiative.</p> <p>7.5.3.3 Integrate indigenous vegetation, specifically low-maintenance drought tolerant species, and where feasible include edible plant species into City and private landscaping.</p> <p>10.1.1.6 Establish guidelines for integrating urban agriculture into public realm and private improvements and developments.</p> <p>10.1.1.7 Collaborate with communities, landowners and other organizations to identify potential areas to develop temporary or permanent urban agriculture activities.</p>	<p>Strategic Policy Direction The City of Edmonton:</p> <p>2.1.3 infrastructure and public spaces to promote and encourage healthy and active living.</p> <p>2.2.5 Partners with community organizations to enliven, enhance, maintain and protect parks and green spaces.</p>			

The following policies of *The Way We Grow* are related to food and agriculture and should be noted, but they do not fit neatly into the five goals:

- 3.2.1.7.1** Preparation of Area Structure Plans is authorized for the Northeast, Southeast and Southwest Urban Growth Areas (see Map 1: Land Development Concept), and shall only be approved following Council acceptance of, and adherence with the:
- Growth Coordination Strategy;
 - Integrated Infrastructure Management Plan; and
 - Citywide Food and Agriculture Strategy.
- 3.2.1.8** Area Structure Plans for the Northeast, Southeast and Southwest Urban Growth Areas (see Map 1: Land Development Concept) shall include the following:
- An area vision created with area landowners and other city stakeholder groups;
 - A peri-urban agricultural section in support of the Food and Agriculture Strategy; and
 - Innovative approaches to food systems, ecological networks, green infrastructure provision, demand reduction strategies and eco-design for future residential, commercial, industrial, business, agricultural and natural uses.
- 3.2.1.9** Any Area Structure Plan prepared for the Northeast Urban Growth Area shall recognize the value of its agricultural characteristics, including micro climate, soil capabilities and moisture content, to contribute to sustainable food and agriculture systems for Edmonton.
- 3.2.1.11** Neighbourhood Structure Plans within the Northeast, Southeast or Southwest Urban Growth Areas shall require Council authorization and comply with the Growth Coordination Strategy, the Integrated Infrastructure Management Plan, and the Food and Agriculture Strategy

The following strategic actions of *The Way We Green* are related to food and agriculture and should be noted, but they do not fit neatly into the five goals:






The City of Edmonton:

- 7.1.1** Collaborates with citizens and stakeholders to establish, implement, and maintain a Food Resiliency Strategy for Edmonton, aimed at addressing food security risks that Edmonton may face from climate change, high energy prices, increasing world population, geopolitical disturbances, and other price pressures. The strategy will address Edmonton's food system in its entirety — production, processing, storage, transportation, buying, selling, eating, and waste management.

The City of Edmonton:

- 9.2.1** Leads the community by example, adopting and applying high standards of sustainability in City operations that reflect the high standards it wishes to encourage throughout the entire community, including the “greenness” of buildings it owns and leases, vehicles it operates, infrastructure it builds and maintains, resources, it uses, contractors and suppliers it hires, programs it delivers, and organizational culture it fosters.
- 9.2.2** Brings government representatives, community members, and organizations together to create a culture of collaboration that values innovation, sharing of resources, and shared accountability.
- 9.2.3** Participates in international networks that promote global sustainability.
- 9.2.3** Participates in international networks that promote global sustainability.
- 9.2.4** Engages the community in developing action plans that support *The Way We Green*.
- 9.2.5** Facilitates the building of a strong community network that connects sustainability-minded citizens, organizations, and leaders for the purpose of sharing, learning, and partnering.
- 9.2.6** Recruits community leaders from all sectors to help lead Edmonton's drive for sustainability and resilience.
- 9.2.7** Partners with individuals, organizations, and communities to achieve Edmonton's sustainability and resilience goals.
- 9.2.8** Coordinates its efforts with other local sustainability educators to ensure Edmonton's sustainability education effort is aligned, efficient, and effective.
- 9.2.9** Ensures that the terms of reference for City boards and authorities contain sustainability and resilience goals where applicable

APPENDIX 4. Example Metrics

GOAL	OBJECTIVE	HOW WE COULD MEASURE THIS?
 <p>A STRONGER, MORE VIBRANT LOCAL ECONOMY Food and urban agriculture in Edmonton contribute more significantly to the creation of community wealth. There are more jobs and business opportunities in the local food and agriculture sectors. As a result, Edmontonians have more opportunities to buy, share and enjoy local and regional food.</p>	<p>The local food economy generates wealth for Edmonton's community</p> <p>There is adequate food processing, storage, and distribution capacity for a range of business sizes and scales</p> <p>There are many job and business opportunities in the local food and agriculture sectors</p>	<ul style="list-style-type: none"> • Value added to the local economy (\$) • Annual sales of locally produced products (\$) • Economic multiplier analysis (\$ rate) • Amount of capacity for food processing, storage, and distribution (sq ft) • Number of businesses using this capacity • Volume of activity in processing, storage, distribution facilities (sales \$) • Number of jobs generated in local food and agriculture sectors (FTEs) • Number of new local food related businesses (annually)
 <p>A HEALTHIER, MORE FOOD SECURE COMMUNITY Everyone in Edmonton has access to enough nutritious, safe and culturally-appropriate food. People have more opportunities to learn about, and participate in, the local food system. Local food is more accessible to everyone and individuals, families and communities are encouraged to grow, prepare, preserve, purchase and celebrate local food.</p>	<p>A greater proportion of Edmonton's food basket is grown/raised, prepared, and processed closer to home</p> <p>A wide diversity of food types are grown and prepared locally</p> <p>A consistently growing number of Edmontonians have the food skills to provide good nutrition to themselves and their families</p> <p>Consumers have easy access to local food</p>	<ul style="list-style-type: none"> • Percentage of locally produced foods consumed annually in Edmonton • Volume of locally produced foods (Kgs) • Number of different local products produced annually • Number of participants completing food skill programs in Edmonton (collective kitchens, cooking courses, nutrition courses, etc.) • Annual per household spending on local food (\$) • Number of local food options accessible within walking distance (Km/Min)
 <p>HEALTHIER ECOSYSTEMS The local food and urban agriculture system positively contributes to the overall health and ecosystem services that green spaces provide. Areas of high biodiversity, environmental sensitivity, and ecological significance are protected. Food and urban agricultural areas are managed in ways that support wildlife habitat, conserve water use and are environmentally sustainable.</p>	<p>The food system is part of and enhances the local ecosystem</p> <p>Food production reduces reliance on synthetically manufactured agrochemicals by relying on ecological methods of soil building and pest management</p> <p>Food producers provide and are connected to wildlife habitat.</p>	<ul style="list-style-type: none"> • Area of natural areas affected by farming (Km²) • Amount of petrochemical inputs in local food production (Litres) • Value of ecological services provided by local farms (\$)
 <p>LESS ENERGY, EMISSIONS AND WASTE The local food and urban agriculture system is highly energy efficient and generate little waste. The food system reduces dependence on non-renewable energy, thereby reducing greenhouse gas emissions. Instead, alternative renewable energy is used, such as energy generated from agricultural by-products and food wastes, which are also composted to improve soil quality. Less solid waste and air pollution are generated during the producing, transporting, distributing, marketing, packaging, eating, and recycling of food.</p>	<p>Our food system uses less non-renewable energy and generates less greenhouse gas emissions</p> <p>Food waste is minimized and bio-energy options are explored</p>	<ul style="list-style-type: none"> • Analysis of ecological footprint of local foods (Tons Co2) • Amount of energy consumed by local food system (Calories?) • Amount of food diverted from waste (Kgs)
 <p>MORE VIBRANT, ATTRACTIVE, AND UNIQUE PLACES Food and urban agriculture create and contribute to vibrant, attractive, and unique places for Edmontonians and visitors. Public and private spaces are designed to use food as a way to enhance the local food culture, celebrate food, and animate and enliven shared spaces. Visitors to Edmonton appreciate and experience the local food culture. Food growing, processing, buying, selling, and eating places are all accessible at the neighbourhood level.</p>	<p>People may easily connect to food and agriculture assets, activities, and resources</p> <p>Food has a strong presence in the public realm</p> <p>Food makes Edmonton more livable, and interesting</p> <p>Edmonton is known for its food culture</p>	<ul style="list-style-type: none"> • Number of participants in local food and agriculture related activities. • Number of times information portals related to local food are accessed. • Number of visible food related landmarks in Edmonton • Number of neighbourhood and community destinations and gathering places related to local food • Number of neighbourhood and community destinations and gathering places related to local food

APPENDIX 5. Links to Consultation

		RECOMMENDATION	REPORTS				Other
			Stakeholders I	Stakeholders II	Citizen Panels	Public Opinion Survey	
STRATEGIC DIRECTIONS	1. Establish the Edmonton Food Council	① Establish the Edmonton Food Council (EFC) by June 1, 2013	X	X	X		
		② Explore the creation of an Edmonton Food Charter					MDP
		③ Provide appropriate supporting resources to the EFC	X	X			
	2. Provide Food Skill Education and Information	① Work with the Edmonton Food Council and various partners (such as Northlands, the University of Alberta, NAIT, and others) to provide multiple learning opportunities on key food and urban agriculture topics and initiatives	X	X	X		
		② Work with partners such as Northlands to enhance existing capacity for information sharing amongst the many organizations, businesses, agencies, and institutions involved in food and urban agriculture	X		X		
		③ Create a single portal for a wide-range of food and urban agriculture information and education.	X	X	X	X	
		④ Assess and map Edmonton's food system assets	X		X		
		⑤ Support mentorship and training for urban agriculture	X	X	X		

		RECOMMENDATION	REPORTS				Other
			Stakeholders I	Stakeholders II	Citizen Panels	Public Opinion Survey	
STRATEGIC DIRECTIONS	3. Expand Urban Agriculture	① Pursue urban agriculture opportunities in existing and developing neighbourhoods			X	X	
		② Develop partnerships to support innovation in urban agriculture	X	X	X		
		③ Support for-profit and peri-urban agriculture activities		X	X		
		④ Examine opportunities for citizens to keep bees and raise hens	X		X	X	
	4. Develop Local Food Infrastructure Capacity	① Assist in creating appropriate spaces and opportunities for local food businesses to operate and expand		X	X		
		② Pursue partnerships with private business and other economic agencies and examine establishing a commercial/private sector Agri-Food Hub	X	X	X		
		③ Assist in improving neighbourhood-scale food infrastructure	X		X		
	5. Grow Local Food Supply and Demand	① Request that the Edmonton Food Council examine local food system resilience			X		
		② Create partnerships to strengthen and diversify the local food		X	X		
		③ Strengthen Farmers' Markets	X	X	X		
		④ Increase local food purchasing within City of Edmonton operations	X		X	X	
		⑤ Work with the Province of Alberta and other industry stakeholders to develop a made/raised/grown-in-Alberta identification system	X		X		
⑥ Pursue partnerships with non-profits and other agencies (e.g. Community Food Centres Canada) to examine establishing a public sector Edmonton Community Food Hub.		X	X	X			

		RECOMMENDATION	REPORTS				Other
			Stakeholders I	Stakeholders II	Citizen Panels	Public Opinion Survey	
6. Enliven the Public Realm Through a Diversity of Food Activities	① Celebrate and promote local food producers, community gardens, and food grown, raised and made in Edmonton	X		X			
	② Pursue partnerships with non-profits and other agencies such as Community Food Centres Canada to establish a public sector Edmonton Community Food Hub.	X	X	X	X		
	③ Examine City regulations to allow, where appropriate, permanent and temporary sidewalk patios	X	X	X			
	④ Support a wide range of food retail in new and existing neighbourhoods to promote convenient pedestrian access to healthy food sources	X	X	X			
	⑤ Continue to build on the success of street vendors		X	X			
7. Treat Food Waste as a Resource	① Develop partnerships to assist in the redistribution of healthy, fresh and high-quality surplus food		X	X	X		
	② Develop partnerships and initiatives to utilize and reduce food waste			X			
	③ Take a leadership role in promoting initiatives to reduce the volume of packaging associated with the food system			X	X		
8. Support Urban Farmers and Ecological Approaches to Farming	① Create partnerships to provide education and training about urban farming and urban agriculture in Edmonton	X	X	X	X		
	② Identify options for providing incentives to new and emerging urban farmers, including the possibility of leasing City-owned land to urban farmers.	X	X	X			
	③ Examine regulations and guidelines for urban and peri-urban agriculture	X	X	X			
	④ Identify mechanisms to protect and maintain the healthy ecosystems that are vitally connected to peri-urban agricultural lands			X			
9. Integrate Land Use for Agriculture	① Examine establishing a municipal Agricultural Land Reserve (ALR) designation	X	X	X			
	② Examine the costs and benefits of creating, or partnering with, a land trust	X	X	X			
	③ Adopt and apply the “Integrating Land for Agriculture Framework”	X	X	X			
	④ Work with the Capital Region Board to develop a regional agricultural land use policy.					MDP	

acknowledgements

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